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File Code: 2400

Date:January 22, 1997

Dear National Forest User:

Enclosed is Pacific Southwest Region 5's 1995 Timber Sale Program Information Reporting System (TSPIRS) Report. Due to a host of factors including the need to coordinate the release of the Region's report with the National Report, release of the Report was delayed.

The Pacific Southwest Region (Region 5) of the Forest Service manages approximately 20 million acres of national forest land in California for numerous uses and a variety of products. One of the numerous uses on Region 5's national forest land is our timber sale program. This program is managed according to the standards and guidelines on each individual forest's Land and Resource Management Plan. The Timber Sale Program Information Reporting System (TSPIRS) guides and monitors the region's effort to improve the cost efficiency of the timber program. The Pacific Southwest Region's report follows a similar format used in the Washington Office's national TSPIRS report. The content of the Fiscal Year (FY) 1995 Region 5's TSPIRS report, deals directly with California fiscal issues relating to the Timber Sale Program in the Pacific Southwest Region.

The continuing decline in the size of the Region's timber sales program has created a number of challenges for Forest Service managers. The factors that have been most influential in reducing the size of the timber sale program have been the heightened concerns by the public for meeting management requirements related to threatened, endangered, and sensitive (TE&S) species. Other significant factors include the need to resolve ongoing appeals, lawsuits and claims, along with the desire to preserve remaining areas of old-growth forest.

As in FY 1994, the FY 1995 Timber Sale Program Annual Report includes information about timber sale finances by program component. The program is separated by the primary purpose of the timber harvest in each of three categories. Timber sales that are designed primarily to produce timber or other wood products (timber commodity component) are separate from those designed to achieve stewardship or non-timber objectives. In addition, the harvest of products like firewood by individuals is also separated into the personal use component.

In FY 1995, the harvest of 453.3 million board feet of timber from all national forests in California produced 114.6 million dollars in gross revenue and netted 17.1 million dollars after subtracting operating expenses and

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FS-6200-28b (12/93)

extraordinary losses. Approximately 39.0 million dollars of the gross revenues were returned to the state and counties for use by schools and highway departments.

The Timber Sale Program Information Reporting System (TSPIRS) provides the basis for most of the information presented in this report. We hope that it is useful in forming your own conclusions about the national forest timber sale program by helping you to understand the results and complexities of managing diverse forest ecosystems.

Sincerely,

James A. Lawrence

G. LYNN SPRAGUE
for Regional Forester

TIMBER SALE PROGRAM ANNUAL TSPIRS REPORT

FISCAL YEAR 1995

USDA FOREST SERVICE
PACIFIC SOUTHWEST REGION

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Many other people are involved in the TSPIRS reporting process. Although everyone cannot be listed here, their help was essential in completing this report.

PREFACE

Brief History of the Timber Sale Program Information Reporting System (TSPIRS)

There has been considerable controversy and debate among public factions that national forest timber sales have not operated at a profitable level. The issues involved in timber cost efficiency and below-cost timber sales are quite complex, but have resulted in the Forest Service taking action to improve the overall efficiency of its operations. Consequently during the year of 1985, Congress directed the Forest Service to design and implement an accounting and reporting system that would display the costs and benefits of the Forest Service's timber sale program. This reporting system was "pilot-tested" during Fiscal Year (FY) 1987 and 1988, and was officially implemented in FY 1989.

After two years of system development by the Forest Service and the General Accounting Office (GAO), a test Timber Sale Program Information Reporting System (TSPIRS) report was developed for timber sale programs by all national forests. The national TSPIRS report is now produced each year to provide Congress and the public with financial, economic, and other information about the Forest Service's timber sale program.

Pacific Southwest Region 5 TSPIRS report

This report is the FY 1995 Regional Summary for the 18 National Forests in the Pacific Southwest Region. This report summarizes the revenues and costs of the 18 National Forests' timber programs and effects on the local economies of each National Forest in FY 1995. The report also estimates the present value of current and future benefits and costs that are expected to be generated from selling Pacific Southwest Region national forest timber in FY 1995.

The Pacific Southwest Region's report is intended to be a factual disclosure of the costs and benefits associated with the FY 1995 timber program in the Region. The FY 1995 report uses a similar format to the one used in FY 1994. In FY 1994, an effort was made to reduce the size of the report. Much of the financial and economic information detail included in FY 1995 and prior reports has been summarized. For those who wish to see it, the FY 1995 detailed information is available upon request (see section on USDA Forest Service Contact).

The FY 1995 report also continues to separate national forest timber sale programs into program components. In 1992, the Forest Service adopted an ecological approach to the

management of national forests and grasslands. This approach emphasizes blending the needs of people with management that sustains forest ecosystems. To keep pace with this management philosophy, national forests now classify their timber sales based on the primary purposes of the sale (see section on Timber Sale Program Components). The Timber Sale Program Information Reporting System calculates a net revenue figure for each of the components. As in FY 1994, these figures are included in this report by national forest in California (see Appendix E). This separation into program components also affects the way the below-cost timber sale issue is viewed on each forest.

EXECUTIVE SUMMARY

The Forest Service timber program has changed significantly over the years in response to public desires to expand and re-shape the uses, values and environmental services for which the national forests are managed. This response has, in many ways, been the basis for the evolution toward an ecosystem approach to forest management. This ecosystem approach is broad-based, holistic and incorporates objectives and values that require the examination of the entire landscape at all levels. The ecosystem approach generally increases costs, thereby escalating "below-cost" concerns. To understand the complexities of the below-cost timber sale issue, it is necessary to understand how they relate to traditional timber management and how these relationships have changed under ecosystem management.

The overall worth of national forest timber harvest to U.S. citizens can be measured in several ways, ranging from monetary results to personal judgements about timber sale effects based on human values. This report provides information that is useful in evaluating the performance of the FY 1995 timber sale program relative to overall forest management objectives.

The harvest of 453 million board feet of timber from all national forests in California in FY 1995 produced $114.6 million in gross revenue and $17.1 million in net revenue (after subtracting operating expenses). Approximately $39.0 million of the revenues were shared with states and counties for use by local schools and highway departments.

The timber harvest also supported an estimated 4,900 jobs in local communities, and produced approximately $226.8 million in employment related income. An estimated 34.0 million was returned to the Treasury from Federal taxes paid on that income.

The present net value of the long-term economic effects expected as a result of the FY 1995 timber harvest is estimated at $119.0 million.

The FY 1995 program was separated into three components on each national forest. Timber harvest primarily designed to provide wood products to meet the needs of society was categorized as "timber commodity" harvest and comprised 53 percent of the total program. Timber harvest designed to achieve non-timber resource objectives and/or desired future ecological conditions made

up 36 percent of the total program and was placed in the "forest stewardship" component. The remaining 11 percent of the national timber sale program included harvest of products such as firewood for "personal use".

The "Timber Program Issues" report previously mentioned examined the issues of below-cost timber and discussed the complexities surrounding issue resolution. Below-cost timber sale programs in the FY 1995 report are again identified using the timber commodity component net revenue--as was done in FY 1994. In FY 1995, 12 national forests in California operated timber commodity components greater than 1 MMBF. Of those, 4 operated at a net loss in that component. These 4 forests produced 19.1 percent of the total timber commodity harvest and accumulated a total net loss of $3.3 million. The remaining 8 national forest produced a net gain of $35.2 million in FY 1995.

Harvest in the forest stewardship component was used to achieve a number of non-timber resource objectives including endangered species habitat enhancement, general wildlife habitat improvement, scenic quality objectives, public safety objectives, ecosystem restoration, forest health maintenance, and more. There was a net loss of $10.4 million in FY 1995.

Based on the revenue earned and related expenses, the personal use component produced a net loss of $7.7 million in FY 1995.

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Back MAP -- National Forests in California

NATIONAL FOREST TIMBER MANAGEMENT

Timber management in the Pacific Southwest Region has changed dramatically over the past several years. During the development and implementation of TSPIRS in the late 1980's, forests were working within Land and Resource Management Plans developed in compliance with existing laws and policies. These laws were the 1976 National Forest Management Act and the National Environmental Policy Act. Timber management, as a part of the Management Plans, was a primary management goal. Other resource activities within timber sales were not primary activities, consequently outputs were high and costs were reasonably low.

In recent years Land and Resource Management Plans have been changed to incorporate the principles of Ecosystem Management. Forest Health issues are now strongly emphasized in timber management programs. These changes have increased the complexity and costs of timber sales and outputs have declined. The following subsections discuss some of the history and effects of incorporating new principles of resource management into timber management practices.

THE EVOLUTION OF ECOSYSTEM MANAGEMENT

The American public has begun to view forests as ecosystems supporting a complex web of life, of which humans are a part. As human population numbers and resource demands increase, the emerging challenge for society and Forest Service land managers is to find ways that both commodity products and amenity values can be realized over time from the same area of the national forest. This is the challenging new focus for the evolving concept of land stewardship and forest health.

A significant part of national forest management activities and investments in the Pacific Southwest Region have been centered around the timber program. The Region 5 timber sale program has changed significantly over the past several years in response to public desires to expand and re-shape the uses, values, and environmental services for which the 18 national forests are managed. The response of the Pacific Southwest Region to changing public concerns about the timber sale program has, in many ways, been the basis for the evolution of an ecosystem approach to management that is broad-based and holistic.

Ecosystem management is the current theme for the future of the Forest Service. In June of 1992, the former Chief of the Forest Service (Dale Robinson) directed the agency to begin the implementation of ecosystem management. The Chief defined ecosystem management as "the skillful, integrated use of ecological knowledge at various scales and

levels to produce desired resource values, products, services and conditions in ways that also sustain the diversity and productivity of ecosystems".

In October 1994, the present Chief of the Forest Service (Jack Ward Thomas) issued "A Course to the Future for the Forest Service" which described the agency's values and perspective on ecosystem management. It emphasized the continued commitment to land and service, and highlighted their similarities and interdependence.

The Pacific Southwest Region has now completed a strategy for accomplishing ecosystem management. It conforms to management philosophies developed at the national level and identifies four objectives for implementing ecosystem management. These objectives are to take care of the land, address the needs of the people, use resources wisely and strive for balance. The recently completed Region 5 document "Sustaining Ecosystems, A Conceptual Framework" is a step in the Region's on-going effort to define ecosystem management and strategic issues.

The objective of ecosystem management in Region 5 is to sustain ecosystems. The conceptual framework defines sustainability in terms of conserving biological and cultural/social diversity. Conservation of diversity lowers the risk of creating conditions that threaten sustainability. The conceptual framework is not a legal regulatory document but a framework that outlines a rationale and process for Region 5 to sustain ecosystems through the implementation of our individual Forest's Land and Resource Management Plans. It is the basis for more informed decisions regarding the myriad of cultural and social values attached to the ecosystems we are intrusted to manage. Ecosystem management differs from our past resource management in the way we intend to conserve biological and cultural/social diversity. Implementation of ecosystem management will help the Pacific Southwest Region emphasize outcomes in relation to the condition of the land and community instead of placing emphasis on outputs. The conceptual framework is a foundation for integration of ecosystem principles and the framework is an improved understanding of the ecosystems in our national forest system.

Along with the conceptual framework, the Northwest Forest Plan 1995 and the California Spotted Owl Environmental Impact Statement (when completed) are intended to provide direction for an ecosystem approach to maintain viable populations of numerous listed species associated with late successional forests. These species include the Northern Spotted Owl, the California Spotted Owl, Marbled Murrelets and anadromous fish.

All of the national forests in Region 5 have completed their Land and Resource Management Plans. The six northern National Forest, the Six Rivers, Klamath, Shasta-Trinity, Mendocino and portions of the Modoc and Lassen have incorporated

direction from the Northwest Forest Plan 1995 into their individual Forest Land and Resource Management Plans. The national forest plans of the Sierra Nevadas, the Modoc, Lassen, Plumas, Tahoe, Eldorado, Stanislaus, Sierra, Sequoia, Inyo and the Lake Tahoe Basin Management Unit have been amended to incorporate the Interim Guidelines for the protection of the California Spotted Owl.

Five national forests in the Pacific Southwest Region have timber programs that are managed to achieve non-timber resource objectives. Their individual Forest Land and Resource Management Plans reflect forest stewardship objectives. The timber programs on the Lake Tahoe Basin Management Unit, Los Padres, San Bernardino, Angeles, and the Cleveland National Forests do not have a timber commodity component and are not required to operate above cost. The Forest Land and Resource Management Plan guidelines of these National Forest incorporate ecosystem management philosophies.

These new approaches of ecosystem management in the Pacific Southwest Region incorporate objectives and values, such as meeting the biological requirements of plant and animal species. The individual Forest and Resource Management Plans examine landscapes from scales on a district level to scales beyond the national forest level. There is no doubt that resource conflicts will continue to require re-evaluation for the appropriate balance between production of commodity and non-commodity forest resources within the capabilities of natural ecosystems. The principles of ecosystem management will provide the basis to develop this balance using a holistic landscape approach. Ecosystem management is continuing to evolve within Region 5 and the Forest Service.

FOREST HEALTH

The State of California is quite diverse in its physical, vegetational and climatic characteristics. The geographic differences of the state varies from mountain ranges rising to 14,500 feet to deserts 300 feet below-sea-level. The climate of California produces the longest growing seasons in the United States, but the annual rainfall levels are very unpredictable and highly variable. The trees that grow on Region 5's national forest vary from Southern California coastal chaparral forest and shrubs to eastside pine to mixed conifer and redwood forests. The forest products that are produced from these varying ecosystems range from highly valuable to economically inconsequential. These forest products provide a variety of goods and services from lumber and firewood to recreational, aesthetic quality and nesting habitat.

According to a United States Department of Agriculture, general technical report RM-234, titled Forest Resources of the United States, 1992, the current annual tree growth on national forest timber lands in the Pacific Southwest region is 463 million cubic feet (approximately three billion board feet) and mortality is estimated at 107.8 million cubic feet (approximately 700 million board feet). Timber removal in FY 1995 was calculated at 453 million board feet. This means the Region 5's timber management program is harvesting only a fraction, approximately 20% of the net growth in California.

Forest health and forest uses are influenced by insects, pathogens, fire, frequent droughts, air pollution, animal damage, avalanche, flooding, flash floods, urban encroachment, seismic events and volcanic activity. In 1995 Region 5 saw an increase in the level of awareness pertaining to the issues of forest health and its connection to fire and fuels management on national forest lands. In the summer of 1995 the Pacific Southwest Region's 1995 wildfire season was characterized by below normal fire activity with 1,526 total fires on 22,125 acres. The winter of 1994/1995 saw an unusually high amount of moisture. The typical California summer pattern of a high pressure ridge off the coast did not form until late in the summer. Numerous forest fires from the recent past have generated substantial debate about forest health problems and the buildup of fuels that have been accumulating for decades in western forest ecosystems. Many of these dense fire-prone forests are also experiencing insect and disease mortality that make them more susceptible to future catastrophic fires.

Insects and diseases kill many more trees than wildfires. Insects and diseases also cause substantial loss of potential tree growth. The interactions of insects, diseases, climate, site and stand factors have been recognized more recently for their role in causing tree mortality. Much of the mortality during the recent drought (1986 to 1994) can be attributed to combinations of these biotic and abiotic elements. Trees of poor vigor, and

affected by pathogens, frequently succumb to bark beetle attack in a short-term drought. Droughts of longer duration cause widespread mortality to stands of timber that are relatively healthy but are located on adverse sites. Long term droughts also make trees in overstocked stands susceptible to bark beetle attacks.

Presently there are numerous trees in overstocked stands, growing on harsh and inappropriate sites, along with numerous old veteran pines and large diameter fir trees. Individual trees in these different stand conditions have continued to die during 1995. Mortality continued to be high even though a substantial decline in mortality occurred in some areas in 1995. The fir engraver in overstocked fir stands and the mountain pine beetle in overstocked lodgepole pine stands were largely responsible for the loses. Jeffery pine beetle continued to kill large diameter Jeffery pines throughout much of the region. The most dramatic decline in acres and volumes affected occurred in the central and southern Sierra Nevada Mountains and Southern California. Mortality appeared early in the drought cycle and resulted in the loss of low vigor trees. Weather patterns improved and resulted in a return to near normal precipitation, thus accounting for the declines.

Aggressive salvage and thinning programs are being prescribed on national forests with forest health problems. Salvage timber sales facilitate the removal of the dead and dying trees while they still have some economic value. These sales also reduce the amount of standing dead and downed fuels. A silvicultural prescription of thinning timber stands to reduce inter-tree competition and removing trees from poor sites has been shown to be very effective in reducing future tree mortality caused by increased bark beetle activity. Silvicultural treatments, in concert with prescribed fire, can play an important role in recovering the health of forest ecosystems. It provides a cost efficient means of removing biomass by thinning dense stands of trees and improving growing conditions for the trees that remain. At the same time, the harvested trees are used to help fill society's need for wood products.

Tree mortality has been extensive during the recent drought, which indicated a forest health problem on the 18 National Forests in the Pacific Southwest Region. With the end of the drought, the Pacific Southwest Region experienced a dramatic decrease of tree mortality. This decrease in mortality is evident in the acres mapped utilizing aerial survey methods and large ground area assessments of existing vegetation. However, a decline in mortality does not mean that forest health problems such as overstocking do not continue to exist.

Through the application of ecosystem management principles and by examining all available scientific evidence, forest managers can make decisions about how to best address current forest health problems. Just as there will be environmental consequences

associated with timber harvest, there will be environmental consequences if no action is taken. The natural agents of change (insects, disease, and fire) can be tempered through the use of scientifically proven silvicultural treatments. The proper application of silviculture, working with the natural forces of evolution, can help guide forest ecosystems to desired future conditions. Along the way, the number and intensity of natural catastrophic events can be reduced.

SALVAGE SALES EXPANDED TO ADDRESS FOREST HEALTH CONCERNS

Interest in salvaging national forest timber increased markedly following the disastrous 1994 wildfire season. In that year, some 2,234 fires burned nearly 222,893 acres of Pacific Southwest Region national forest land. Proponents of expanding the salvage sales program felt the following benefits would occur if the Emergency Salvage Timber Sales Program was allowed to proceed. Dead and dying timber would be utilized instead of being left to decay, the supply of federal timber available to the wood products industry would be increased, the risk of catastrophic losses due to fire, insects, disease would be reduced, and overall forest health would improve. Critics of the Emergency Salvage Timber Sales Program were concerned that forest health would not be improved because dead and dying trees are necessary for healthy ecosystems; any logging has the potential to precipitate undesirable environmental side effects.

Legislatively, a decision to increase the use of salvage sales on national forests and other federal lands was made on July 27,1995 when President Clinton signed into law the FY 1995 Rescissions Act (Public Law 104-19). Section 2001 of this statute sets-forth provisions for an "Emergency Salvage Timber Sales Program." The authority to prepare advertise, offer, and award salvage sales under this law extends through December 31, 1996. In the case of the national forests, subsection (b) of the Act directs the Secretary of Agriculture to "achieve, to the maximum extent feasible, a salvage timber sale volume level above the programmed level to reduce backlogged volume of salvage timber."

To expedite completion of new salvage sales, the Act authorized relaxation of several legislative requirements mainly concerned with analysis of potential agency actions and judicial review of agency decisions. The specifics of this expedited process are described in subsections (c), (e), and (f) of the law.

On August 1, 1995, the President Clinton directed the administration heads of the involved departments and agencies to "move forward expeditiously to implement these timber related provisions and to the maximum extent allowed, follow current environmental laws and programs." The President directed the concerned administrative heads to prepare and sign a Memorandum Of Agreement (MOA) describing how they would implement the law in an environmentally sound manner. This MOA was signed on August 9, 1995. The salvage sale provisions were applied to some timber sales late in FY 1995. Under the appeal guidelines of the Rescission Act, all timber sales were exempt from the previous appeal procedures and were not delayed.

TRENDS AND PURPOSES OF NATIONAL FOREST TIMBER HARVEST

A downward trend in the size of the national timber program continues to occur. In FY 1995, with the exception of volume offered, this downward trend continued. The reasons for the decline in program size have been numerous. The factor that has been most influential in reducing the timber program size in the Pacific Southwest Region is a heightened concern for meeting management requirements related to threatened, endangered and sensitive (TE&S) species. This has been the greatest impact on Region 5's timber program. Other significant factors include the need to resolve ongoing appeals and lawsuits by the public and the public's desire to preserve remaining areas of old-growth.

The following list highlights some of the important events that have had significant effects on the Pacific Southwest Region's timber management activities in Fiscal Year 1995:

The U.S. Fish and Wildlife Service determined the northern spotted owl to be a threatened species under the Endangered Species Act on July 23, 1990. On April 13, 1994, the Record of Decision for the Supplemental Environmental Impact Statement (often referred to as the "Northwest Forest Plan") was signed. The Northwest Forest Plan implemented a comprehensive ecosystem management strategy and projected an annual harvest level of 1 billion board feet on land within the range of the northern spotted owl. This was an increase in the total timber sale quantity compared to previous years when the timber sale program was operating under a court injunction. The timber sale programs for FY 1995 were affected on the Six Rivers, Klamath, Shasta-Trinity, Mendocino, Devil's Garden Ranger District on the Modoc, and Hat Creek Ranger District on the Lassen National Forest.

In FY 1992, the marbled murrelet was listed as a threatened species in Oregon, Washington and Northern California. Consequently, the timber sale programs on the Six Rivers National Forest and the Happy Camp and Ukonom Ranger Districts on the Klamath National Forest was impacted by this listing. As a result of this listing timber sale programs within the range of the marbled murrelet operated below-cost for FY 1995.

During the year of 1993, the Forest Service implemented a conservation strategy to retain California Spotted Owl habitat. The strategy established interim Standards and Guidelines for timber management activities for protection of the California Spotted Owl in the Sierran province. The Sierran province includes ten National Forests in Region 5. The timber sale programs on the Eldorado, Inyo, Lassen, Modoc, Plumas,

Sequoia, Sierra, Stanislaus, Tahoe National Forest, and the Lake Tahoe Basin Management Unit were affected for FY 1995.

A Forest Carnivore Detection Protocol on six National Forests in the Pacific Southwest Region was implemented in FY 1993. Habitat use patterns, home range size, rest and den site characteristics were established. The Regional Forester designated the Pacific Fisher and Martens as sensitive species in 1994. Management considerations for these species increased cost to timber sale programs on all national forest in the Pacific Southwest Region during FY 1995.

In FY 1994, the agency completed a major study of the timber sale program and how it dovetails with ecosystem management. Results of the study are documented in the report titled "Timber Sale Issues: A Technical Examination of Policy Options". The study also provides detailed discussion and analysis of policy options related to timber sale cost efficiency and the below-cost timber sale issue.

Ecosystem management continues to evolve within the Forest Service. This management philosophy emphasizes the accomplishment of multiple-use management by blending the needs of people with environmental values. The number of timber sales designed primarily to enhance non-timber resources or achieve desired future ecological conditions continues to increase in concert with this shift in management philosophy. In 1994, the ecosystem management approach was supported in a major court decision which upheld the President's forest plan for the Pacific Northwest. In April 1995 Region 5 completed a final document "Sustaining Ecosystems A Conceptual Framework" which provides direction to implement ecosystem management.

The timber sale program on the Eldorado National Forest was reduced during FY 1995 due to reconsideration of existing timber sales for environmental reasons. Consequently, the Forest's timber program was below-cost for FY 1995, but is expected to return to above-cost levels upon completion of the reconsideration process.

On July 27, 1995 the President signed the Rescission Act (Public Law 104-19) which contained provisions for an emergency salvage timber sale program. The salvage provisions of the Act are intended to expedite salvage timber sales in the order to achieve a salvage sale volume above the programmed level. This will help to reduce the backlogged volume of salvage timber. The Salvage Sale Provisions of Public Law 104-19 has had a significant impact on the Pacific Southwest Regions timber sale program.

The concern over forest health problems continued to increase through FY 1995.

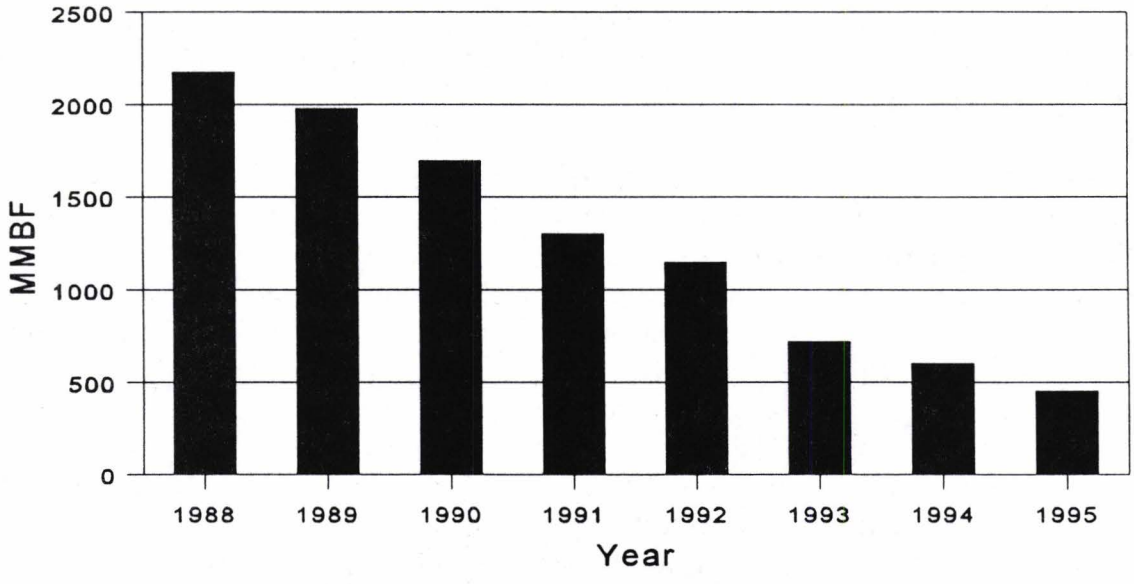
Wildfires were not very severe but the potential for a catastrophic fire season still threatens to consume millions of acres in forests and rangeland throughout the West. Independent scientists issued warnings that unless the dense fire-prone forests of the Inland West are properly managed, the future will see increases in catastrophic insect and disease attacks and fires. Silvicultural practices, including timber harvest, can be used as a cost efficient tool to help improve forest health.

One factor that has impacted the timber program size in all regions is the downward trend in appropriation levels. Funding was reduced to the Pacific Southwest Region because our capability to offer timber sales declined. Annual appropriations for timber sale administration and management has declined from approximately $444.9 million to $353.9 million, which is a decrease of 20 percent. Funding for "salvage" sales actually increased over this interval while funding for "green" sales decreased.

Timber harvest from national forests in California has declined from 2173 million board feet in FY 1988 to 453 million board feet in FY 1995. The amount of timber volume under contract decreased in FY 1995. The cost of harvesting timber in Region 5 has increased and, when compared to the cost of reforestation, has resulted in significantly reduced revenues. The following chart displays the volume of timber harvested from these national forests since 1988.

California National Forest Timber Harvest

Figure 1



National forest timber harvest serves a wide variety of purposes today. The harvest is used to:

Alter the Composition and Distribution of Forest Vegetation to Achieve Desired Ecological Conditions -- Under ecosystem management, the key purpose is the ability to manage forest vegetation to achieve desired ecological conditions and sustain healthy ecosystems into the future. In many cases, the harvest of trees provides a cost efficient tool necessary to meet that objective. Other tools (such as controlled burning) are also used, but they are often not as cost efficient or may not be preferred from an environmental perspective. Since healthy forests that have been thinned, are less susceptible to insect, disease attacks and to fire than forests that are overstocked. Logging offers an efficient way to improve and maintain forest health and sustain forest ecosystems.

Provide Wood to Help Meet the Needs of U.S. Citizens -- The United States uses approximately 19.8 billion cubic feet of wood each year and timber harvest for national forests helps to satisfy some of this demand. The country is currently a net importer of wood products, importing nearly twice as much wood as it exports. Of the total United States consumption of wood and paper products, 18% is supplied by net imports from other countries, 10% is supplied by national forests, 5% is supplied by other public forests and 67% is supplied by private owners.

One of the major public laws on which national forests are founded, the Organic Administration Act of 1897, calls for the designation of national forests to help satisfy the needs of U.S. citizens for wood. Other public laws, including the Multiple-Use Sustained-Yield Act of 1960, direct that national forests be used to provide a variety of resources and uses to the public, including wood production. The demand for products such as paper, fuel, construction lumber, and furniture continues to increase at a rate of about 1 percent annually (Haynes 1990).

Support Local, Regional, and National Economies -- Over the past 50 years the production of timber has represented a substantial portion of the United States economy. The value of timber produced in the country represents 21 percent of the value of all agricultural crops and, if viewed as a crop, is considered number one in terms of revenue production (Haynes 1990). In General Technical Report RM-199, Richard Haynes indicates that about 8 percent of all of the country's employment in 1986, wages and salaries, value added by manufacture, and value of shipments by all manufacturers was attributable to the forest industries. National Forest timber harvest also supports communities by creating jobs. As shown in Figure 1, timber production has decreased dramatically in recent years. A decline in timber related jobs is associated with the decline in timber production on national forests.

Not all of the purposes and results of national forest timber sales are considered positive by everyone. As previously noted, when all of the social, environmental, and economic factors are considered, there is controversy about whether the overall value of national forest timber sales is positive or negative. It is the intent of this report to provide relevant facts to help federal land managers and the public make informed judgements and decisions about these programs.

EMPLOYMENT GENERATED BY NATIONAL FOREST TIMBER HARVEST

PURPOSE OF THE EMPLOYMENT, INCOME & PROGRAM LEVEL ACCOUNT

This section of the report highlights important findings from the "employment, income and program level account" of TSPIRS. More detailed information pertaining to each forest is presented in Appendix D.

The employment, income, and program level account, displays the employment, income, and federal income tax benefits attributed to a given year's timber harvesting activities. This report uses its frame of reference of a single year in which the harvesting operations were actually conducted. The information contained in the employment, income, and program level account complements the data presented in the other accounts of TSPIRS in two ways:

by recognizing certain important social and economic impacts not captured in the other accounts; and

by providing a more complete description of what is really accomplished with timber program expenditures.

Because of these differences, inclusions of the account strengthens TSPIRS and enables the reporting system, to more fully portray the "net public benefit" that results from each year's national forest timber program.

The account's employment figures indicate not only the "direct" employment attributed to the national forest timber program, employment in the harvesting and primary wood-using industries, but also any relevant "secondary" employment effects. Additionally, this account depicts the average number of full- and part-time employees using National Income and Product Account conventions.

The account's income figures indicate what is called "total regional factor income," and they consist of essentially three parts:

Employee Compensation -- Includes wages and salaries, and supplements to wages and salaries, employer contributions to employee health benefit and retirement plans.

Proprietor's Income -- Includes the income of sole proprietorships, partnerships, partners, and tax-exempt cooperatives.

Other Factor Income -- Includes such things as rental income, interest and dividend earnings, and corporate profits.

The program accomplishments that are reported in the account include volume offered, volume sold and awarded, and volume harvested. The account presents data on: the area of land impacted by harvesting activities or land impacted by natural events, the volume of free use firewood produced, the number of Christmas trees cut, the value of other "non-convertible products" (cones, boughs and ferns). The account also includes data on the area of land on which timber stand improvement activities for timber purposes were conducted (release, weeding, pruning, and pre-commercial thinning) and the mileage of roads constructed and/or reconstructed using either appropriated moneys of purchaser road credits.

EMPLOYMENT EFFECTS

Only effects on local economies in the Pacific Southwest Region are included in this analysis. There are additional jobs generated in regional and the national economies as a result of other activities such as heavy equipment manufacturing or petroleum refining, but they are not included here. The total effect of the timber sale program on the national economy would be greater than the sum of the local effects.

Local community employment in the Pacific Southwest Region is generated when timber is harvested and milled into an intermediate or finished product. TSPIRS tracks the amount of local employment and employment related income that is supported as a result of the timber harvested from each national forest. Effects of timber sale programs on direct, indirect, and induced jobs at the local level are estimated along with the associated employment income and federal income taxes.

The Pacific Southwest Region timber sale program provides employment and money for county roads and school programs. In the State of California most counties have very diverse economies. A stable timber sale program is not critically important when viewed with the overall economy of California. To a majority of the counties in California this money represents a small contribution to their total economy. However, several counties north of Sacramento rely heavily on timber related employment and money returned from timber receipts. The counties in the Southern Cascades, the Northern Sierra Nevada and the Northern California Coast ranges are quite dependent on timber related employment. When Region 5's timber sale program decreases or increases, it directly affects the individuals and families of these Northern California counties. The timber sale program has decreased dramatically from previous years due to the planning and regulatory requirements of timber operations on national forest lands. Presently the reduction of timber sales under contract continues to decline. During FY 1994, the amount of volume under contract was 871 MMBF and for FY 1995 the amount reduced even further to 793 MMBF. This is a reduction of approximately 9% from FY 1994.

The employment estimates include both public and private sector jobs that are directly and indirectly generated as a result of activities and expenditures in the timber sale program. Those jobs that are induced as a result of increased local economic activity are also included. The estimates of employment income include personal income such as salaries, and proprietary income such as rent and return on capital investments.

The FY 1995 timber sale program in California supported approximately 4.9 thousand local community jobs which provided nearly $226.7 million dollars in employment related

income. Approximately $34.0 million dollars were returned to the Federal treasury from income taxes paid on those wages.

If the number of jobs supported is divided by the volume of timber harvested during FY 1995 (453 MMBF), the results indicates, from a regional perspective, an average of 10.9 jobs was generated for every 1 MMBF of national forest timber cut in the Pacific Southwest. An average of $500 thousand in employment related income were supported for each million board feet (MMBF) harvest from national forests in California in FY 1995. The jobs and income generated per MMBF can vary from forest to forest based on two basic factors:

(1) the variation in the ratio of softwood sawtimber, softwood roundwood, hardwood sawtimber, and hardwood roundwood produced on the forest (Higher proportions of sawtimber tend to support more jobs/MMBF)

(2) the value of the products sold (Higher value products support more jobs).

As the Forest Service's timber sales program declined over time, the total number of jobs being supported by the program has also dropped. This decrease has continued to occur with the reduction in the total employment attributable to the program dropping from 13,780 jobs in FY 1992 to 4,930 jobs reported in FY 1995. This is a decrease of 64 percent.

Table 1 displays the employment effects of the FY 1995 timber sale program from all national forests in California.

EMPLOYMENT AND INCOME INFORMATION (Table 1)
For the Fiscal Year Ended September 30, 1995

Timber Related Jobs	4,930
Employment Related Income (in thousands)	$226,780
Federal Income Tax Generated (in thousands)	$34,020

Information about the number of jobs supported in each national forest in California is presented in Appendix D.

FINANCIAL INFORMATION

This section of the report highlights important findings from the "financial account" of the Pacific Southwest TSPIRS report. The purpose of the financial account is to examine timber sale revenues and costs from a regional perspective. Revenue and cost relationships are documented not only for the timber program as a whole, but also by program component. Finally, selected unit revenue and cost trends are examined. All TSPIRS financial statements for prior years have been adjusted to reflect the new accounting practices of determining the cost of the genetic tree improvement program. More detailed information about the financial accounts of specific forests is contained in Appendices (A) and (B).

The TSPIRS financial account displays the revenues, expenses, and resultant net revenues (revenues minus expenses) that were associated with the harvesting of national forest timber during the fiscal year. Separate financial accounts are developed by each forest. At each administrative level, revenues, expenses, and net revenues are separated for three distinct components of the overall sales program, These components are the timber commodity purpose sales, forest stewardship purpose sales, and personal use purpose sales. The financial account has been designed to be in conformity with "generally accepted accounting principles." The revenues recognized in the financial account include actual stumpage receipts, purchaser road credits established as purchasers complete construction or reconstruction of needed access roads, purchaser deposits for such things as road maintenance and brush disposal, and any interest or penalty payments that are assessed. The expenses that are recognized fall into four broad categories:

Direct Timber Sale Expenses, which include the cost of such activities as sale preparation and harvest administration.

Direct Timber Program Expenses, which include the cost of such activities as transportation planning, conducting silvicultural examinations, and reforesting timber harvest areas.

Indirect Timber Sale Expenses, which include the cost of dealing with appeals and litigation.

Indirect Timber Program Expenses, which include the cost of a "general administration" or the portion of line management and program support costs that is properly chargeable to the timber program.

The financial account, as previously noted, is constructed using accrual accounting principles. To better match annual timber sale revenues to timber-related cost, both current costs and those of an investment nature, expenditures that will benefit future as well as current timber sales are placed into one of three cost pools. One of the cost pools recognized by TSPIRS is the "sale activity pool." This pool includes those costs directly associated with the preparation of timber sale, and the cost that are placed in it are expensed using the ratio of volume harvested to volume harvested plus volume under contract. The second cost pool is the "growth activity pool." This pool includes the costs associated with growing timber over an entire rotation; the costs placed in it are expensed using the ratio of volume harvested to the total growing stock volume on suitable lands. The last pool that TSPIRS recognizes is the "depreciation pool." This pool includes the costs of roads and facilities; the cost that are placed into it are depreciated over predetermined periods of time set to approximate their anticipated useful lives. The amount of each pool's balance that is "written off" in any given year is determined using pre-established formulas.

PAYMENT TO STATES

There is still considerable debate concerning the 25 percent of timber sales receipts that must, by law, be returned to the state and counties for use in supporting local schools and roads. This transaction is referred to as "payment to states" (Act of May 23, 1908, 16 U.S.C. 500). Should this transfer of money be counted as a timber program cost? Some have argued that since the original intent of these payments was to substitute for the property taxes that private land owners would pay, they should be treated as a cost. The Forest Service, however, has consistently maintained that the payments are not a program cost, but a redistribution of income that occurs outside the agency's normal financial activity. These payments are not controllable by Forest Service managers. As in earlier fiscal years, the current year appropriations act provides for paying a higher proportion of receipts to counties affected by the listing of the Spotted Owl as a threatened species. Congressional treatment of payments to states for those counties that have been impacted by the reduced timber harvesting needed to ensure northern spotted owl habitat protection supports this position. Accordingly, while payments to states for FY 1995 are documented in this report, they have not been treated as a cost to the Pacific Southwest timber program.

Of the total revenues earned, $39.0 million were returned to states and local communities for use by school systems and highway departments. Even though the timber sale program in the Pacific Southwest has declined, the payments to states has not decreased in proportion to current harvest volumes. This is due to changes in the market conditions for timber products. The market value of timber products dramatically increased in 1994 but slightly decreased in 1995.

The FY 1995 harvest of 453 million board feet of timber from national forests in California produced $114.6 million in gross revenue and, after expenses, $17.1 million in net revenue. The total FY 1995 revenues and expenses for national forests and the regional office in California are reported in table 2.

Detailed information for each forest in California and the Regional office is presented in Appendix A.

COST AND REVENUE TRENDS

Tables 2 and 3 displays a comparison of timber sale program financial performance for fiscal years 1991-95. The regional statement of revenues and expenses for FY 1995 shows that the harvest of 453 million board feet of national forest timber produced a total

STATEMENT OF TIMBER SALE REVENUES AND EXPENSES (Table 2)

For the Fiscal Year Ended September 30, 1995

(in thousands of dollars, except as noted)

Revenues [1]		
Timber Sale Receipts	$ 103,373	
Purchaser Road Credits	3,657	
Associated Charges	7,483	
Interest and Penalties	113	
Total Revenues	$ 114,626	
Expenses		
Direct Expenses		
Timber Sale	$ 66,835	
Timber Program	10,426	
Total Direct Expenses	$ 77,261	
Indirect Expenses		
Timber Sale	$ 833	
Timber Program	15,885	
Total Indirect Expenses	$ 16,718	
Total Expenses		$ 93,979
Revenue (before extraordinary expenses)		$ 20,647
Extraordinary Expenses*		3,519
Net Revenue		$ 17,128
Total Timber Harvested (Millions of Board Feet) [2]		453
Reclassified Assets**		$ 63,808

[1] As a result of revenues earned, $39.0 million were returned to states and counties through the 25 percent fund revenue sharing program for use by local schools and highway departments.

[2] Total timber harvest is presented for information purposes only.

* An extraordinary expense is a loss that is unusual and infrequent in occurrence. The only extraordinary expense claimed in FY 1995 was on the Modoc National Forest and was due to heavy mortality caused by the prolonged drought in northern California.

** A reclassified asset is defined as an amount that is a un-depreciated costs of the growth pool, roads, and facilities which are transferred from timber to another benefitting resource. Land use designation changes are the most common reason to recognize reclassified assets. Reclassified assets are not an expense since the assets still exist.

revenue of 114.6 million dollars. The combined direct and indirect costs of operating the program were 93.9 million dollars, resulting in a net revenue, before extraordinary losses, of 20.6 million dollars. Extraordinary losses during the year were 3.5 million dollars, thus yielding a final net revenue of 17.1 million. Net revenues from FY 1995 decreased by 70% when compared to net revenues from FY 1994.

In FY 1995, TSPIRS was changed to treat Genetic Tree Improvement costs as annual expense. All TSPIRS financial statements for prior years have been adjusted to reflect this new accounting practice.

CONDENSED STATEMENTS OF TIMBER SALE REVENUES & EXPENSES

(Table 3)

For Fiscal Years Ended September 30, 1991-95
(in thousands of dollars[1], except as noted)

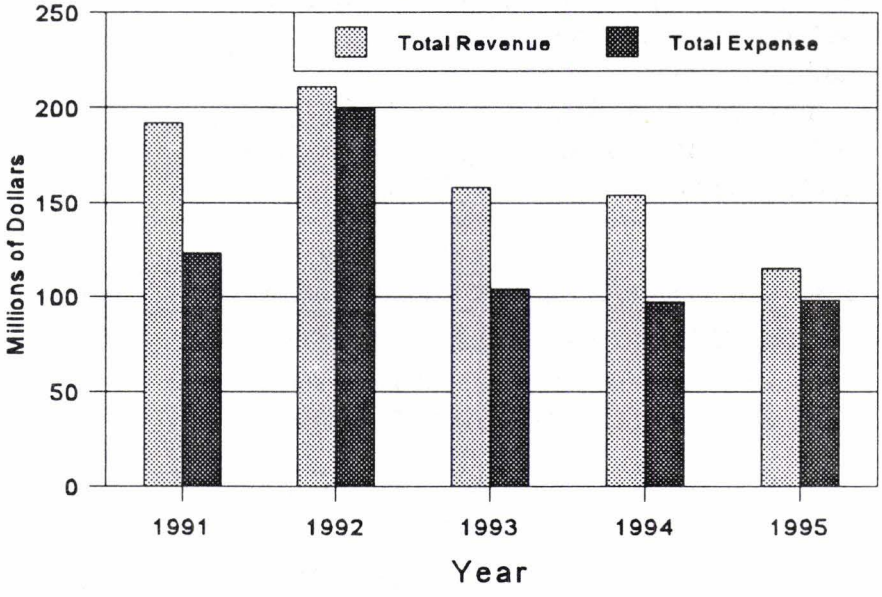
	FY 1991	FY 1992	FY 1993	FY 1994	FY 1995
Revenues	$191,773	$211,392	$157,665	$154,197	$114,626
Unit Value	147.18	183.98	218.98	255.71	253.03
Expenses	$122,839	$146,156	$103,909	$97,170	$93,979
Unit Value	94.27	127.20	114.32	161.14	207.46
Net Revenue (before ext. expense)	$68,934	$65,236	$53,755	$57,027	$20,646
Unit Value	52.90	56.78	74.66	94.57	45.57
Ext. Expense[2]	0	$53,323	0	0	$3,519
Unit Value	0	46.4	0	0	7.7
Net Revenue	$68,934	$11,913	$53,755	$57,027	$17,127
Unit Value	52.90	10.37	74.66	94.57	37.81
Timber Harv (MBF)	1,303	1,149	720	603	453

[1] The 1991-93 dollar amounts are not adjusted for inflation.
[2] Extraordinary losses were not calculated prior to FY 1992.

As in FY 1994, the volume of trees harvested continued to decline in FY 1995. However, the prices paid for them continued to increase from FY 1991. The price for FY 1995 decreased slightly from FY 1994. In FY 1995, the unit revenue leveled off at $253.03 per MBF harvested.

Total Revenue & Expenses

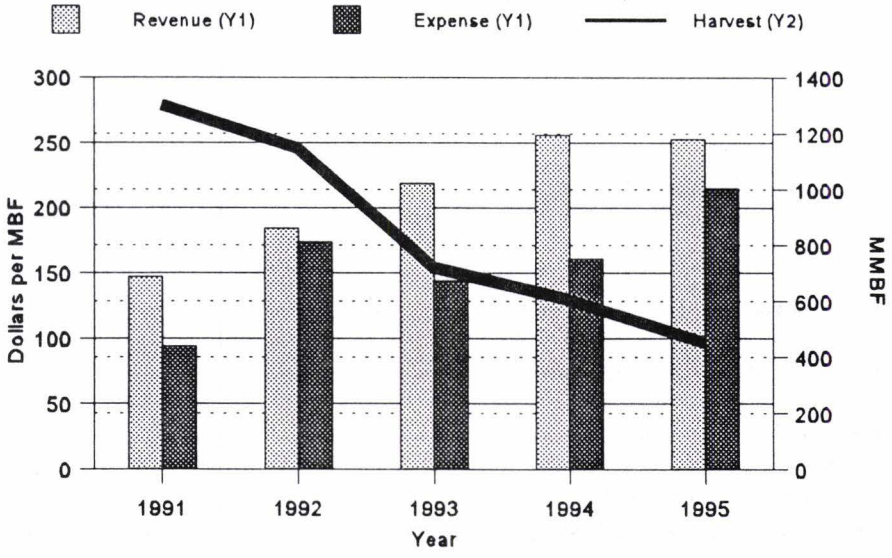
Figure 2



Total expenses for the program are continuing to show a slight decline, but are not keeping track with harvest volume reductions. While the agency has substantially reduced its work-force in line with the timber program decline, there still continues to be high costs associated with endangered species protection and coordination with other resource programs and

Unit Revenue, Expenses & Harvest Trend

Figure 3



accounting changes. The preceeding charts display the total revenue and cost trends and the unit revenue and cost trends for the past 5-year period.

The cost of additional environmental and resource coordination are generally reflected in the timber sale preparation cost group. During FY 1995, overall expenses associated with timber sale preparation decreased from previous years. Expenses for environmental analysis and other resource support (combined) began to decrease as a percent of the total and now comprise 29.6 percent of all timber sale preparation expenses. Efforts have been made to be more cost efficient. Table 4 displays these relationships.

REGION WIDE SALE PREPARATION EXPENSES (Table 4)
For the Fiscal Years Ended September 30, 1992-94
(in thousands of dollars, except as noted)

	FY 1993		FY 1994		FY 1995	
	Expenses	% of Total	Expenses	% of Total	Expenses	% of Total
Analysis and Doc. [1]	$ 1,800	5.9	$ 1,615	5.8	$1,971	29.6
Other Resource Support*[1]	10,775	35.4	10,200	36.6	0	0
Appeals and Litigation [1,2]	483	1.6	184	0.7	159	0.7
Field Work & Contract Prep	17,343	57.1	15,879	56.9	16,430	69.7
Total Timber Sale Prep	$30,401	100.0	$27,878	100.0	$23,560	100.0

[1] See Glossary for definitions of these work activities.

*An accounting change has occurred in Other Resource Support. These costs were previously displayed separately. The Other Resource Report cost are now reported with Analysis/Documentation.

[2] The FY 1992 Timber Sale Program produced numerous Timber Sales that were delayed as a result of pending appeals or litigation (including investments in analysis and documentation, other resource support, and field work and contract preparation). Many of these sales continued to be delayed through 1993 and 1994, particularly those associated with northern spotted owl litigation. A 1994 court decision upheld the President's forest plan as resolution to this issue. Litigation for the northern spotted owl ended in FY 1995 which resulted in reducing the costly expense of appeals and litigation. As a result, Region 5 will include associated reclassified asset and extraordinary expense calculations in the FY 1995 TSPIRS financial statements to properly account for these investments.

Studies have indicated that economies of scale have a significant effect on unit costs. As the timber program declines on a forest, savings can be realized through the reduction of workload associated with activities such as sale preparation. However, fixed costs for items such as rents and utilities will continue until offices can be moved or consolidated. The document, Timber Program Issues: A Technical Examination of Policy Options (Liggett 1995), examines this factor as well as numerous others that affect timber sale program costs and revenues.

SPECIAL FOREST PRODUCTS

Along with timber products, the Forest Service also sells other forest products such as mushrooms, tree boughs, and ferns that cannot be converted into board feet, the standard measure for timber. Demand for these products has increased sharply over the recent past which has given rise to concerns about the way these resources should be managed. The Statement of Timber Sale Revenues and Expenses includes the revenue and expenses associated with the sale of these products. The Forest Service is continuing to examine impacts of these sales on program activities and the best way to account for them.

CHANGES TO TSPIRS IN FY 1995

The Forest Service continually strives to fairly present the amounts displayed in the Timber Sale Program Annual Report. Most of the changes that are made from year to year are based on audit recommendations made by the U.S. Department of Agriculture Office of Inspector General (OIG).

Since many aspects of the timber sale program and the Forest Service's accounting system are unique to the agency, development and application of "generally accepted accounting principles" in TSPIRS has taken a few years to develop. The accounting changes introduced this year represent a major attempt to apply "generally accepted accounting principles" as accurately as is feasible with the systems in use today. While future improvements in the accounting system may dictate additional changes in TSPIRS, this year's accounting improvements represent the best application of accounting theory and practice that is currently possible. The specific accounting changes that were implemented in FY 1995 are described on the next three pages.

ACCOUNTING CHANGES TO TSPIRS GENETIC TREE IMPROVEMENT PROGRAM

Genetic Tree Improvement has been a part of the growth activity pool in TSPIRS since the system's inception in 1987. As a part of this pool, these costs are capitalized and amortized over the growing stock inventory life cycle. This amortization schedule takes many years to completely expense the costs. Recently the Forest Service has been examining changes needed to more fairly present the expenses from growth pool cost in TSPIRS. This examination has led to a clearer understanding and more accurate value of Genetic Tree Improvement costs.

Previously the Forest Service had considered Genetic Tree Improvement activities a part of the cost of growing the timber inventory. Upon close examination, it has been determined that the true nature of these costs represented a research and development type activity to discover and develop a superior timber inventory. It was determined that Genetic Tree Improvement activities are conducted to search and find superior seed sources and to measure genetic gains to assess specific seed sources. The intent of this program is to produce seedlings for future reforestation that will result in superior trees.

To help bring TSPIRS in compliance with "generally accepted accounting principles", programming changes to TSPIRS by the National Finance Center will expense the costs incurred for Genetic Tree Improvement annually. This change was an error in application of "generally accepted accounting principles" and will require that financial statements be stated for errors when prior year reports are presented. All TSPIRS financial statements for prior years must now be adjusted to reflect this new accounting practice. These actions will help bring TSPIRS in compliance with "generally accepted accounting principles" and more fairly present the results of timber sale operations.

ACCOUNTING CHANGES IN TSPIRS SALE PURPOSE ALLOCATION PROGRAM

On June 4, 1992, the Forest Service officially adopted an ecosystem approach to its management of national forests. This philosophical shift in national forest management also changed the way timber is seen as a resource commodity in conformance with the Multiple-Resource Sustained-Yield Act. Now, the primary design of a timber sale is to achieve objectives not directly related to the timber resource. The Forest Service made a concerted effort in FY 1993 to identify the primary purpose of each timber sale. New definitions for the three timber sale program components (Timber Commodity, Forest Stewardship and Personal Use) were developed. An allocation method was developed to allocate all expenses (except harvest administration) to the three components based on the

proportionate share of the total timber harvest from each component.

The current allocation of expenses to the timber sale program components grossly overstates expenses charged to the personal use component. The new procedures will report a much more realistic account of the results of the personal use component operations.

ACCOUNTING CHANGES IN TSPIRS ROAD DEPRECIATION PROGRAM

The allocation of road depreciation costs to the timber sale program is not an accurate reflection of the purpose and use of the existing road system. In summary, land allocations are changing rapidly on many national forests. The timber roads on these lands are no longer being used for the primary purpose for which they were built. Some roads are being obliterated, some closed, and many others are used primarily for other purposes. Still the depreciation for these roads is being charged to TSPIRS. Consequently, concerns were raised by the Office of General Council in an FY 1992 Forest Service Management report. As a result of these concerns, the Forest Service has developed an accounting methodology for the forest road system to handle the frequent changes to the land allocation categories of lands under the stewardship of the Forest Service with a reasonable cost-benefit relationship.

Road depreciation expense is an indirect joint cost and is not an identifiable part of the timber harvest. Nearly all roads are being used for many different purposes. The road system is being used for the timber sale program, the recreation program, minerals extraction, the grazing program and in all other programs. There is a strong emphasis on ecosystem management. There is a need under any funding or tracking system for the proper allocation of road depreciation costs to all benefitting programs. Accordingly, in FY 1995 TSPIRS began to recognize two types of Appropriated Road Maintenance expenditures which are the costs incurred to preserve closed timber roads, and costs to develop road maintenance plans for timber sales.

Taking into consideration all accounting principles and other available data the Forest Service recommends depreciating the entire road system using an indirect cost process with direct labor hours as the basis for allocation. No change is recommended in the four road components of prism, surface, culverts and bridges, or the standard life of these components that have been previously developed.

ACCOUNTING CHANGES IN TSPIRS REFORESTATION AND TIMBER STAND IMPROVEMENT PROGRAM

Reforestation and Timber Stand Improvement have been a part of the growth activity pool in TSPIRS since 1987. These costs are also capitalized and amortized over the growing stock inventory life cycle. The growing stock inventory is the inventory of merchantable timber which is timber in the 6-inch Diameter at Breast Height (DBH) class and greater. Prior to 1993, an average harvest volume over each forest's timber rotation was the basis for the growth pool amortization. Because of the change to growing stock inventory, the Forest Service has been examining changes needed to more fairly present the expenses from growth pool costs in TSPIRS.

Reforestation and Timber Stand Improvement cost pools are amortized starting in the year these costs are incurred. These cost represent the cost of the timber inventory available for sale as measured by the growing stock inventory. These costs do not result in saleable inventory until the timber reaches a size large enough to be included in the inventory. The result is that expenses are recognized each year for which there has been no expiration or removal of assets. This is a basic assumption of "generally accepted accounting principles" and accrual accounting. To more accurately depict what really happens, in FY 1995, TSPIRS began to capitalize Reforestation and TSI costs into an Immature Timber Asset Account. These costs will remain in this account for however long it takes, on average, for the timber on a particular national forest to reach harvest size. Once this time has elapsed, the costs in question will start to be depleted. Because of the magnitude of the work involved in establishing the Immature Timber Asset Account, this change will not be completed until FY 1996.

Besides the preceding changes, some minor adjustments were made in the structure of the Statement of Revenues and Expenses. Three lines that previously appeared in the statement have now been dropped. These are: "Other Resource Support," "Appeals/Litigation - Roads," and "Timber Planning." All of the costs that these lines used to represent are still accounted for in TSPIRS, but they now appear in different places. Other Resource Support was moved into "Analysis/Documentation;" Timber Planning was moved into "Sale Preparation;" and Appeals/Litigation - Roads was moved into "Road/Design and Construction."

ECONOMIC ACCOUNT

This section of the report highlights important findings from the "economic account" of TSPIRS. The focus is on examining what the economic account shows from a regional perspective. More detailed information pertaining to specific forests are presented in Appendix C.

The economic account displays the long-term benefits and costs expected to result from a given year's timber harvesting activities. The account's information compliments the data in the financial account in three ways:

by considering future effects, not just immediate effects;

by considering effects on all resource values, not just timber-related effects; and

by examining "economic" effects, not just "financial" effects.

All of the preceding differences merit brief clarification. Concerning the first distinction, the basic idea is that the financial account uses a single year as its frame of reference. This means it uses the year during which the timber harvesting operations being evaluated were actually conducted, while the economic account considers a time frame that is infinite in length. The second distinction describes the basic idea of the financial account documenting only timber program effects while the economic account considers how timber harvesting affects all resource programs (recreation, wildlife, fisheries, grazing, soils, and water). The third distinction of the financial account is that it examines only actual receipts and expenditures while the economic account utilizes state-of-the-art non-market analysis techniques to quantify relevant resource effects that cannot be evaluated by other methods.

The economic account is constructed by performing what is called a "with-and-without" analysis. Initially, relevant resource effects are estimated under the assumption that a particular year's timber harvesting operations are indeed conducted. Next, these same resource effects are estimated effects using the assumption that no timber harvesting occurred. Lastly the marginal output changes attributable to timber harvesting are evaluated. These output changes may be immediate or delayed. The unit values employed to make these conversions are taken from the best available information sources which may be site specific research studies, values used Resource Planning Act plans, or values set forth in forest plans.

In order to make direct comparisons between monetary values occurring at different points in time, the economic account discounts the values of all positive and negative output changes back to the desired base year using a 4 percent real rate of interest. The present value of the negative output changes is then deducted from the present value of the benefits. As a last step, the present value of any costs, including road costs, that will have to be incurred to realize the projected benefits is subtracted from the present value of the benefits themselves to derive two "present net value" (PNV) figures one that considers timber resource effects only, and one that considers effects on all resources, including timber.

Conceptually, when the PNV considering all resource effects is positive, it indicates that at the assumed rate of interest, the timber harvesting investments made during the year were economically justified. This is because the present value of the expected long-term benefits exceeded the present value of the expected long-term costs. This fact illustrates one of the complexities of the below-cost sale controversy which is selecting the criteria by which to determine if a below-cost situation exist. It is not uncommon for forests to have a negative net revenue in the financial account of TSPIRS and still have a positive PNV in the economic account.

Analytical techniques used to estimate resource effects for the economic account are similar to those used in developing forest plans. The resource production changes that are expected to result from the FY 1995 harvest have been quantified and assigned monetary values. Estimates of investment and operating costs are also included in the PNV calculation. If there are instances where timber harvest would increase the production of a particular resource, such as recreation opportunities, but there is no demand for or means of using that additional resource, no value is assigned.

Current and anticipated costs and timber benefits associated with the FY 1995 timber harvest are included in the calculation of the "PNV for Timber Only." The timber benefits are based on market-related transactions, while non-timber resource benefits are generally based on simulated markets. The economic value of non-timber resource effects is estimated through the use of non-market analysis techniques. Where investments are made in basic infrastructure, such as arterial or collector roads, the economic account may include the total cost of the development, but it does not include all the associated benefits. Benefits associated with future timber sales from surrounding areas that may use the same facilities are not included in the analysis.

ECONOMIC ACCOUNT (Table 5)
For the Fiscal Year 1995 Timber Harvest
(in thousands of FY 1995 dollars)

Present Value of Benefits		
Positive Effects		
Timber	$ 266,717	
Other Resources	10,419	
Total Positive Effects	$ 277,136	
Negative Effects		
Timber	0	
Other Resources	124	
Total Negative Effects	124	
Total Present Benefits (Positive less Negative)		277,012
Present Value of Costs		
Timber	142,034	
Other Resources	1,565	
Roads	14,510	
Total Present Value of Costs		158,109
Present Net Value (Benefits less Costs)		
PNV for Timber Only (includes road costs)		110,173
Total PNV All Resources (including timber)		$ 118,903

The total PNV calculation for all national forests in Region 5 combined is displayed in table 5. PNV information for each forest in California is included in Appendix C.

ECONOMIC ACCOUNT RESULTS

The effects of logging on non-timber resources, including recreation, wildlife, fish, grazing (domestic livestock), and water is estimated and included in the PNV calculation where a monetary value can be determined or assigned to the effect. The "PNV for Timber Only (w/ Road Costs) is 110 million.

The economic account for the Pacific Southwest TSPIRS report indicates that for FY 1995, from a regional perspective and considering all resource effects, the harvesting of national forest timber generated a total PNV for all resources for FY 1995 of 119 million. From a Regional perspective, as the size of the national forest timber sale program has declined in recent years, the present net value of the long-term resource effects as a result of timber harvesting, has declined. The PNV for all resources has also declined from FY 1994.

TIMBER SALE PROGRAM COMPONENTS

In developing the Timber Sale Program Annual Report, the Forest Service began differentiating sales according to primary purpose in FY 1993. This will help to display how the harvest contributes to ecosystem management and the practice was continued in FY 1995. Separation of timber sales into program components was developed for essentially two reasons. The first rationale was to more accurately reflect the reasons why national forest timber is sold and harvested, and to provide a means of portraying the revenues and expenses associated with each class of sales. The second rationale was to help clarify the dimensions of the below-cost timber sale controversy. In this regard, some have argued that sales being made to help meet the nation's demand for wood should be held to a higher financial standard than sales being made to accomplish other management objectives such as creation of habitat favorable to certain species of wildlife, or providing firewood, Christmas trees, and other miscellaneous forest products to individuals for their personal use.

The FY 1995 effort used the same definitions for the three components as in FY 1993. Each sale or portion of a sale is categorized into one of the following (see Glossary for complete definitions):

1) **Timber Commodity Component:** Timber that is harvested in this component is done so primarily to supply raw material (wood) to help meet the needs of society.

2) **Forest Stewardship Component:** The harvest of trees is used as a cost efficient tool in this component to help achieve desired ecological conditions and non-timber resource objectives as outlined in forest plans.

3) **Personal Use Component:** Forest products such as firewood and Christmas trees are sold and removed by individuals for their personal use.

Both salvage and green timber sales use the same definition; salvage can be included in any one of the three categories.

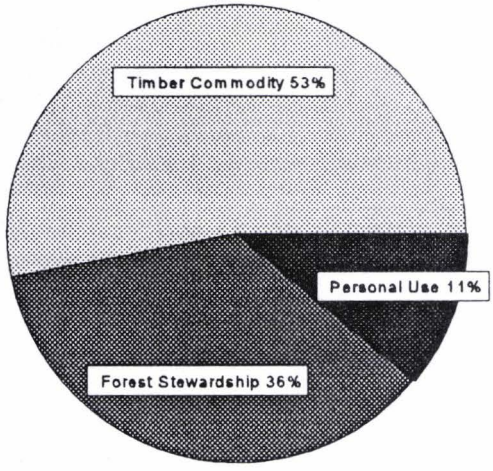
In FY 1995, harvest in the timber commodity component comprised 53 percent of the total, while forest stewardship and personal use harvest made up 36 and 11 percent of the total, respectively, as displayed in figure 4.

The TSPIRS financial information is again presented by program component here.

Besides tracking the volume of timber harvested in each category, TSPIRS also computes the net revenue for each national forest program component. Timber revenues are recorded for each individual sale and are considered accurate by component. Harvest administration expenses are also tracked separately (by component) on each forest. All of the other expenses are allocated to components based on the amount of timber harvested in each. As an example, if 75, 20, and 5 percent of the timber is harvested in the timber commodity, forest stewardship, and personal use components respectively, timber sale preparation expenses would be allocated to each component in the same proportions. This allocation method of accounting for expenses is not as accurate as the accounting method used for harvest administration, but it does represent the best information available at this time. The Forest Service is continuing to investigate methods of efficiently estimating or tracking actual costs by program component. Specific sections of this report deal with the timber commodity, forest stewardship, and personal use components and display the net revenue calculation by component for the Region-wide timber sale program.

PROGRAM COMPONENTS

Figure 4



This information about the volume of trees harvested and the net revenue produced in each component provides a close link to current discussions about the below-cost timber sale issue. Questions about when it may or may not be appropriate to apply profitability criteria to national forest timber sales are also directly related. The following section about the timber commodity component provides a more detailed discussion of the FY 1995 below-cost timber sale situation.

TIMBER COMMODITY COMPONENT

Of the total timber harvested from national forests in California in FY 1995, 53 percent came from the timber commodity component. Timber is harvested in the timber commodity component primarily to help meet the needs of U.S. citizens for wood products. In the Organic Administration Act (1897), Congress authorized the establishment and administration of national forests, in part, to "furnish a continuous

supply of timber for the use and necessities of citizens of the United States". The Multiple-Use Sustained-Yield Act of 1960 further authorized the administration of national forests to produce a balanced mix of "outdoor recreation, range, timber, watershed, and wildlife and fish purposes". Where the primary purpose of national forest timber harvest is to provide wood for use by citizens, the Forest Service classifies it as "timber commodity" harvest.

Table 6 displays the net revenue produced by harvest in the timber commodity component from all national forests in California (see Appendix A for more detailed information by forest).

With the substantial reduction in national forest timber sales that have occurred over the past few years and revisions in forest plans, the proportion of harvest in the timber commodity component is expected to decline in future years.

STATEMENT OF TIMBER SALE REVENUES AND EXPENSES
TIMBER COMMODITY COMPONENT (Table 6)
For the Fiscal Year Ended September 30, 1995
(in thousands of dollars, except as noted)

Revenues		
Timber Sale Receipts		$ 79,624
Purchaser Road Credits		2,874
Associated Charges		5,176
Interest and Penalties		69
Total Revenues		$ 87,743
Expenses [1]		
Direct Expenses		
Timber Sale	36,745	
Timber Program	6,173	
Total Direct Expenses	42,918	
Indirect Expenses		
Timber Sale	409	
Timber Program	8,030	
Total Indirect Expenses	8,439	
Total Expenses		51,357
Revenue (before extraordinary expenses)		36,386
Extraordinary Losses		1,156
Net Revenue		$ 35,230
Total Timber Harvested (Millions of Board Feet) [2]		241

[1] Actual expenses for the timber commodity component are not recorded separately from the other components, except for harvest administration. Instead, they are allocated to the program component based on the total timber commodity harvest volume. A proportion of the Regional Office expenses have also been allocated to the timber commodity component.

[2] Total timber harvest is presented for information purposes only.

BELOW-COST TIMBER SALE ISSUE

During FY 1994, the Forest Service completed a substantial amount of work on the below-cost timber sale issue. The agency completed a study of the timber program as it relates to ecosystem management and produced the report "Timber Sale Program Issues: A Technical Examination of Policy Options (Liggett 1995)". The study and report were produced in response to testimony by the U.S. Department of Agriculture Under-Secretary at a Senate hearing. They address the below-cost timber sale issue in detail.

The following excerpt from the report describes the complexity and underlying basis of the below-cost timber sale issue.

> National forest timber sales that do not recover their cost of operation have been the subject of debate throughout the history of the Forest Service. On the surface, the issue appears to be one of simple economics. However, it is directly related to larger debates about environmental concerns and the appropriate use of national forests. Debates about below-cost timber sales incorporate subjective human values, which form the criteria used to judge the overall worth of Federal timber sales. The below-cost timber sale issue is, in reality, very complex.
>
> Through numerous laws and regulations, the Federal government has recognized that national forest timber sales not only provide wood to help meet the needs of U.S. citizens, but are also a cost-efficient tool for managing forest ecosystems. The ultimate value of national forest timber sales to society cannot be measured in terms of economics alone. Instead, all of the economic, social, and environmental effects must be considered and subjectively balanced against one another.
>
> This subjective judgment is highly dependent on the perspectives of the people reviewing below-cost timber sale situations. Some are concerned with the high risk of environmental damage and believe that there is often a net loss when all economic, social, and environmental factors are considered. Others believe that the potential environmental effects are minor and that the positive social effects related to the jobs created by timber sales outweigh the negative economic returns. Still others point out that timber sales are necessary to help improve and maintain healthy forest ecosystems, even if they do not produce profits. The perception that these interests are mutually exclusive is common in basic discussions about whether national forest timber should be harvested at all. The discussions are often based on human values that seemingly oppose one another, and they ignore the scientific evidence that environmental and economic interests can both be accommodated in balanced solutions.

The report also reviews the historical debate over below-cost timber sales and various definitions of the term "below-cost." It also discusses the practice of separating timber harvest into the program components described here. In the FY 1993 Timber Sale Program Annual Report, below-cost timber sale programs were defined as those that produced net losses in the timber commodity component (see Appendix E). That same definition is used in this report.

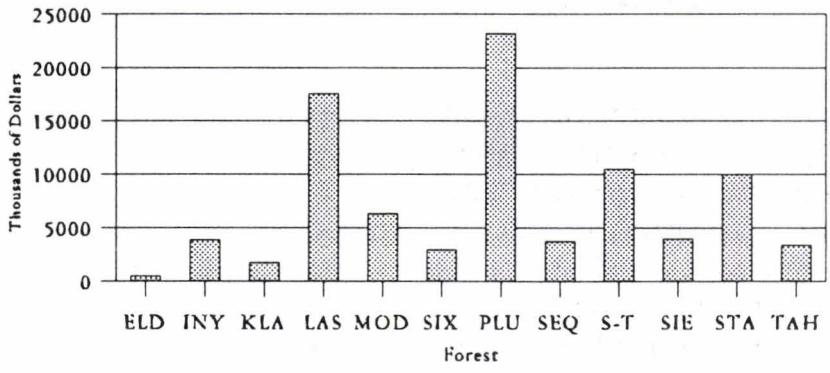
The below cost timber sale policy only applies to Forests that produce timber commodity sales. The economies of scale for the Lake Tahoe Basin Management Unit, Los Padres, San Bernardino, Angeles and Cleveland National Forests timber programs are too small to have reasonable unit costs. The amount of timber volume harvested under these small timber sale programs produce high unit costs. This results from low prices received from the timber products sold. These factors prevent the Lake Tahoe Basin Management Unit, Los Padres, San Bernardino, Angeles and the Cleveland National Forests from operating timber programs above costs.

In FY 1995, twelve national forests in California operated timber commodity components greater than 1 MMBF. Of those, four operated at a net loss in that component. These four forest (Eldorado, Klamath, Six Rivers, Tahoe) produced 19.1 percent of the total timber commodity harvest and accumulated a total net loss of $3.3 million. The Mendocino National Forest historically had a timber commodity component greater than 1 MMBF, but during FY 1995 they did not operate at a timber component of 1 MMBF. The volume harvested on the Mendocino National Forest was negligible for FY 1995. The Mendocino operated at a net loss of 63,000 thousand dollars.

The graphs in figures 5 and 6 display the financial performance in the timber commodity component for each forest in California with a timber commodity program. See map on inside back cover for location of national forests in Region 5.

TIMBER COMPONENT TOTAL REVENUE

Figure 5

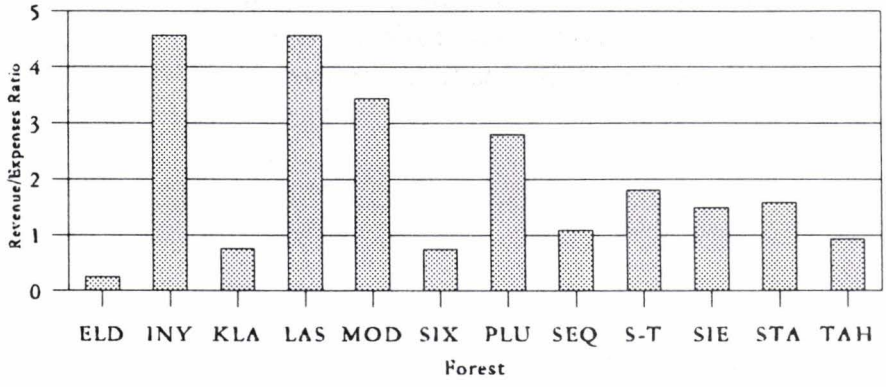


Soruce: TSPIRS statement of Timber Sale Revenues and Expenses

Figure 6 displays the ratio of Total Revenues from the timber commodity component program to the expenses to harvest timber volume. Forests that did not harvest over 1 million board feet (MMBF) are not displayed. These Forests are Angeles, Cleveland, Los Padres, Mendocino, and San Bernardino National Forests and Lake Tahoe Basin Management Unit. This table shows that for every one dollar spent on harvesting timber, the Pacific Southwest Region received an a average of $1.95 dollars in return.

TIMBER COMPONENT REVENUE TO EXPENSES

Figure 6



Source: TSPIRS Statement of Timber Sale Revenues and Expenses

THE COST EFFICIENT USE OF LOGGING TO ACHIEVE NON-TIMBER OBJECTIVES

Forest Stewardship timber sales, by definition, produce ecological results or non-timber resource benefits that are not reflected in the income statement. These benefits often are not monetarily valued and cannot be included in the financial statements. Therefore, it is not appropriate to judge the worth of those sales solely on the basis of the profits or losses they produce.

Through the use of ecosystem management principles, harvest in the forest stewardship component is specifically designed to achieve non-timber objectives that are outlined in the forest plan. In this component, logging is a tool used to achieve the necessary vegetation management. If the forest had no timber program, or there was no demand for the timber being sold, then these objectives would be achieved through some other means such as controlled burning. In effect, the sale of timber is secondary to the non-timber objectives. The revenue earned is considered an offset to the cost of the project.

Timber harvest in the forest stewardship component results in tangible benefits (e.g., improved habitat for an endangered species) that are not counted in the calculation of financial profits or losses. The primary concern about harvest in this component is not one of profit or loss, but one related to whether the most cost efficient and environmentally safe method of achieving the desired objective is being used.

Because of the inability to measure non-timber benefits through the financial statements, the Forest Service does not include forest stewardship component revenues and expenses in the above/below-cost determination. As a result, the financial activity in the timber commodity component is used to determine if national forests are operating at above or below cost levels.

FOREST STEWARDSHIP COMPONENT

Harvest in the forest stewardship component made up 36 percent of the total harvest from all national forests in California in FY 1995. Timber is harvested in the forest stewardship component primarily to achieve desired ecological conditions and non-timber resource benefits that require management of the forest vegetation.

Table 7 displays the net revenue produced by harvest in the forest stewardship component from all national forests in California (see Appendix A for more detailed information by forest).

As more sales are sold under ecosystem management principles and harvested in the future, the proportion of harvest in the forest stewardship component is expected to increase.

STATEMENT OF TIMBER SALE REVENUES AND EXPENSES
FOREST STEWARDSHIP COMPONENT (Table 7)
For the Fiscal Year Ended September 30, 1995
(in thousands of dollars, except as noted)

Revenues			
Timber Sale Receipts		$ 22,952	
Purchaser Road Credits		783	
Associated Charges		2,226	
Interest and Penalties		44	
Total Revenues		$ 26,005	
Expenses [1]			
Direct Expenses			
Timber Sale	24,721		
Timber Program	4,253		
Total Direct Expenses	28,974		
Indirect Expenses			
Timber Sale	210		
Timber Program	4,791		
Total Indirect Expenses	5,001		
Total Expenses			33,975
Revenue (before extraordinary expenses)			(7,970)
Extraordinary Losses			2,363
Net Revenue			$ (10,333)
Total Timber Harvested (Millions of Board Feet) [2]			162

[1] Actual expenses for the forest stewardship component are not recorded separately from the other components, except for harvest administration. Instead, they are allocated to the program component based on the total forest stewardship harvest volume. A proportion of Regional Office expenses have been allocated to the forest stewardship component.

[2] Total timber harvest is presented for information purposes only.

PERSONAL USE COMPONENT

Harvest in the personal use component accounts for 11 percent of the total FY 1995 harvest from all national forests in California.

The personal use component includes sales of forest products such as firewood, Christmas trees, ferns and boughs to individuals. These items are sold with the intent that they are for personal use and not for re-manufacture or resale.

Table 8 displays the net revenue produced by harvest in the personal use component from all national forests in California (see Appendix A for more detailed information by forest).

Personal use programs are popular on virtually every national forest. The Forest Service views them as public service programs for citizens who, with a little elbow grease, wish to use the resources of their national forests.

STATEMENT OF TIMBER SALE REVENUES AND EXPENSES
PERSONAL USE COMPONENT (Table 8)
For the Fiscal Year Ended September 30, 1995
(in thousands of dollars, except as noted)

Revenues [1]		
Timber Sale Receipts		$ 797
Purchaser Road Credits		0
Associated Charges		81
Interest and Penalties		0
Total Revenues		$ 878
Expenses [2]		
Direct Expenses		
Timber Sale	5,369	
Timber Program	0	
Total Direct Expenses	5,369	
Indirect Expenses		
Timber Sale	214	
Timber Program	3,064	
Total Indirect Expenses	3,278	
Total Expenses		8,647
Revenue (before extraordinary expenses)		(7,769)
Extraordinary Losses		0
Net Revenue		$ (7,769)
Total Timber Harvested (Millions of Board Feet) [3]		50

[1] Some firewood and other materials are provided for personal use, free of charge; no revenues are generated as a result of these permits.

[2] Actual expenses for the personal use component are not recorded separately from the other components, except for harvest administration. Instead, they are allocated to the program component based on the total personal use harvest volume. A proportion of Regional Office expenses have also been allocated to the personal use component.

[3] Only products that can be converted to board feet, such as firewood, are included in the harvest volume. Other non-convertible products, such as Christmas trees, are included in the revenues and expenses, but are not included in the harvest figure. Total timber harvest is presented for information purposes only.

PROGRAM INFORMATION

To get a feel for program size and complexity, it is useful to review information related to national forest timber operations. Table 9 provides selected information about timber program accomplishments in FY 1995.

Detailed program information about forests in California is included in Appendix D.

TIMBER PROGRAM INFORMATION (Table 9)
For the Fiscal Year Ended September 30, 1995

Timber Information	
Timber Offered for Sale (MMBF)	544
Timber Sold and Awarded (MMBF)	380
Timber Harvested (MMBF)	
Sawtimber	297
Roundwood	1
Firewood (commercial and personal use)	55
Other	100
Total Harvest	453
Total Area Harvested (acres)	71,932
Free Use Firewood Provided (MMBF)	4
Nonconvertible Forest Products Removed	
Christmas Trees (number of trees)	51,629
Other (value in thousands of dollars)	35
Regeneration Treatment (area reforested in acres)	37,133
Timber Stand Improvement (area treated in acres)	65,094
Forest Road Information	
Road Construction (miles)	
Appropriated Construction	6
Purchaser Credit Construction	21
Total Construction	27
Road Reconstruction (miles)	
Appropriated Reconstruction	44
Purchaser Credit Reconstruction	214
Total Reconstruction	258

USDA FOREST SERVICE CONTACT

Please contact the Forest Service at the following address if you have questions about this report:

USDA Forest Service
Attn: Natural Resource Management
630 Sansome Street
San Francisco, CA 94111

REFERENCES AND SOURCES OF INFORMATION

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GLOSSARY

Analysis and Documentation - A cost category established to track the costs of completing environmental analysis and documentation of timber projects in compliance with the National Environmental Policy Act.

Appeals and Litigation - Cost categories established to track the costs of processing administrative appeals and working on litigation related to timber projects as well as the cost of rework to bring those projects into compliance with changed standards resulting from appeals and litigation. This category does not include the sunk costs (investments) in timber sales that are started but later abandoned because of appeal or legal decisions, nor does it include any revenues foregone or opportunity costs associated with those decisions.

Benefits - Goods, services, or uses resulting from projects or programs. These goods or services may or may not be exchanged in the normal marketplace. Timber and minerals benefits are often considered "commodity" benefits that produce revenue, whereas recreation and wildlife benefits are often considered "non-commodity" benefits.

Cost Pool - An accounting mechanism for the collection of expenditure data in like categories (single-year or multi-year) for the purposes of matching costs against related revenues in the reporting year. In TSPIRS, there are three types of cost pools designed to conform to GAAP. They include:

1) Sale Activity Pool. This pool includes costs of activities directly related to the preparation of timber for sale at an auction. Funds obligated to these activities for the current year are added to the pool and expenses are calculated based on the formula:

Sale Activity Expense =

$$\frac{\text{(Volume Harvested)(Current Year Pool Balance)}}{\text{(Volume Under Contract) + (Volume Harvested)}}$$

2) Growth Activity Pool. This pool includes the cost of activities related to growing trees over a rotation period (from reforestation to harvest). These expenses, such as reforestation and timber stand improvement costs, represent investmens in the growth of trees.

Funds obligated to these activities are added to the pool and expenses are calculated based on the formula:

Growth Activity Expense =

$$\frac{\text{(Volume Harvested)(Current Year Pool Balance)}}{\text{(Growing Stock Volume)}}$$

See "Growing Stock" for a description of the growing stock volume estimate.

3) Depreciation Pools. The expenses for roads and facilities are depreciated over their useful lives using these pools. Facilities, including buildings, are depreciated over a 30-year useful life. Road design and construction costs are capitalized and depreciated by component based on the useful life of that component. The following useful life schedules are used for each component:

Surfacing -- 10 years
Culverts -- 30 years
Bridges -- 50 years

Road prism costs, including the costs of excavation, are capitalized as a permanent land improvement and are not depreciable (assuming routine maintenance is performed to maintain the road contour). Beginning in FY 1993, regional and Washington office transportation planning costs are expensed on an annual basis.

Ecosystem Management - The use of an ecological approach to achieve the multiple use management of national forests and grasslands. This approach blends the needs of people and environmental values in such a way that national forests and grasslands represent diverse, healthy, productive, and sustainable ecosystems.

Forest Stewardship Component -- Timber harvest that is designed primarily to achieve forest stewardship objectives and require vegetation management as outlined in forest plans. If the forest had no timber program or if there was no demand for the timber being harvested, these vegetation management projects would be accomplished through some other means such as controlled burning. When timber harvest is used, it is generally the most financially efficient way of achieving the necessary vegetation management (i.e., it produces the least net cost when both current costs and revenues are considered). Where timber harvest is selected to achieve the forest stewardship objective, the sale of timber is secondary to achieving that objective. This timber may be harvested from lands classified as suited or unsuited for timber management through green or salvage sales. Portions of projects that are primarily designed to achieve fores stewardship objectives are coded as

"forest stewardship" (FS) in the Timber Sale Accounting system, along with the appropriate percent of the associated sale volume.

General and Administration (GA) Costs - The cost of line management and program support that cannot be identified with specific programs. A proportionate amount of the total forest GA is allocated to the timber program based on the ratio of timber expenditures to total forest expenditures.

Generally Accepted Accounting Principles (GAAP) - Conventions, rules, and procedures defining accepted accounting practice, including both broad guidelines and detailed procedures. The rules and procedures are developed by the Financial Accounting Standards Board and the Accounting Principles Board of the American Institute of Certified Public Accountants.

Growing Stock - An estimate of the current merchantable volume of timber growing on lands classified as suitable for timber management in trees 5 inches DBH or greater. The estimate of growing stock is normally based on the timber inventory information included in the forest plan and adjusted for growth, mortality, and removals since implementation of the plan. If more recent inventory information is available for the suitable land base, that information is used and updated accordingly. For purposes of the TSPIRS report, growing stock volume at the beginning of the fiscal year is used in the calculation of expenses from the growth activity cost pool.

Harvest Administration - This cost category includes all aspects of supervising, administering, guiding, assisting, controlling, and reporting the harvest of contracted timber volumes by timber purchasers. Timber purchasers conduct activities in compliance with provisions of the timber sale contract to protect or enhance the forest environment and other forest resources. Typical activities include scaling, check scaling, day-to-day contract administration, inspections of operations, rate determinations, breach actions, contract modifications, report preparation, and others.

KV (Knutson-Vandenberg) Funds - The Knutson-Vandenberg Act passed in 1930 by Congress authorized the collection of these funds from timber sale receipts to be used for reforestation, timber stand improvement, and other resource improvements in timber sale areas.

MBF (Thousand Board Feet) - A standard measure of lumber--1 board foot is equal to a piece of lumber that is 12 inches wide by 12 inches long by 1 inch thick. An MBF is equal to 1,000 board feet.

MMBF - One million board feet.

Multiple-Use - As set forth in the Multiple-Use Sustained-Yield Act (1960), this is the management of all national forest renewable resources in the combination that best meets the needs of the American people. This management approach makes the most judicious use of the land. Managing for some or all of these resources or related services over areas large enough to provide sufficient latitude. The Forest Service will adjust management to conform to changing needs and conditions.

Obligations - Funds (moneys) obligated for payment during a particular fiscal year. The money is counted as obligated when it is owed to the receiving party. On an obligation basis, expenditures are counted at the time the money is obligated, even though the actual cash transactions or payments have not yet taken place.

Other Resource Support - The cost of completing non-timber resource activities in support of timber projects. As an example, wildlife biologists often need to complete biological evaluations of timber sale projects in order to determine if sensitive, threatened, or endangered species would be affected by the sale. The cost of these evaluations is recorded and tracked in the "other resource support" cost category.

Payments to States - Appropriations to states and counties by Congress based on a formula involving revenue received from federal lands. The original act (May 23, 1908, 16 U.S.C. 500) established these revenue sharing payments at 25 percent of the gross receipts received. However, Congressional modifications to the act have changed the 25-percent formula based local situations. Under California law, half of these payments are to be used for county roads and the other half for local schools.

Personal Use Component -- Forest product sales of any size or value are included in this program component where the presumption is that the purchaser will use the material for personal use rather than for manufacture and/or resale. This category includes all free-use permits and paid permits or sales less than or equal to the following quantities:

... 10 cords
... 5 thousand board feet
... 3 Christmas trees
... $20.00 value for other products that cannot be converted to a board foot or cubic foot equivalent (non-convertible products)

These permits or sales (with the exception of free-use) are coded as personal use (PP) in

the Timber Sale Accounting system.

Present Net Value (PNV) - The difference between the discounted value (benefits) of all outputs to which monetary values or established market prices are assigned and the total discounted costs of management. The Forest Service uses a 4-percent discount rate.

Purchaser Credit - Credit earned by timber purchasers through road construction that is applied to stumpage charges (bills) above base rates. The total amount of credit established is considered revenue since it is being used to pay for timber. Purchaser credit is based on the value of the road as determined by the Forest Service engineer's estimate and established in the timber sale contract.

Reforestation (also Regeneration) - Treatments and activities that help to reestablish stands of trees after harvest. Typical activities include preparing the soil, controlling pests, and planting seeds or seedlings.

Road Maintenance - This cost category includes obligations of funds deposited by timber purchasers to perform road maintenance attributable to the purchaser's use of the roads as defined in the timber sale contract.

Sale Preparation - Generally, sale preparation includes all activities undertaken to prepare national forest timber for sale. Since sale preparation activities included in the National Environmental Policy Act (NEPA) analysis and documentation, NEPA-related other resource support, appeals and litigation have been moved to separate cost categories. The sale preparation cost category now includes timber-related field work and contract preparation.

Salvage Sale - The removal of dead, dying, deteriorating, or susceptible trees to prevent the spread of pests or pathogens, to promote healthy, vigorous stands of trees, and/or to aid in the recovery of trees damaged by fire, wind, insects, fungi, or other injurious aents before the timber becomes worthless for harvesting.

Sawtimber - Trees suitable in size and quality for producing logs that can be processed into lumber.

Silvicultural Examination - The process used to gather detailed, on-site field data to determine management opportunities and direction for the timber resource within a small subdivision of a forested area.

Timber Commodity Component -- Timber harvest that is designed to achieve the timber volume objectives of the forest plan. The sale and harvest of this timber is primarily for the purpose of providing forest product raw material to contribute to the nation's timber supply. This timber may only be harvested from lands classified as suited for timber harvest in the land and resource management plan using either green or salvage sales. The portion of a project that is primarily designed to meet timber purpose objectives is coded as "timber commodity purpose" (TC) in the Timber Sale Accounting system. The proportion (percent) of the project (based on volume) that is represented by a primary timber commodity purpose is also coded in the system.

Timber Stand Improvement (TSI) - Noncommercial cutting and other treatments made to increase the growth and improve the quality of trees for timber uses. Treatments include thinning, pruning, weeding, prescribed burning, and fertilizing established stands of trees.

TSPIRS - Timber Sale Program Information Reporting System. A reporting system developed jointly by the Forest Service and the General Accounting Office to provide annual information about the financial, employment-related, and economic performance of national forest timber sale programs.

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To file a complaint, write the Secretary of Agriculture, U.S. Department of Agriculture, Washington, DC 20250, or call (202) 720-7327 (voice) or (202) 720-1127 (TDD). USDA is an equal employment opportunity employer.

APPENDIX A
STATEMENT OF TIMBER SALE REVENUES AND EXPENSES
BY NATIONAL FOREST
FISCAL YEAR 1995

FORESTS	ANGELES	CLEVELAND	ELDORADO	INYO	KLAMATH
REVENUE					
TIMBER SALES	18,695	7,397	1,677,959	3,811,681	4,646,586
PURCH ROAD CREDIT	0	0	49,197	0	439,899
ASSOC CHARGES	0	0	86,150	56,118	494,303
INT & PENALTIES	0	0	11	746	2,823
TOTAL REVENUE	18,695	7,397	1,813,317	3,868,545	5,583,611
DIRECT TM SALE EXP					
TC SALES	(30)	0	522,650	(5,257)	116,487
FS SALES	0	0	451,422	102,608	236,990
PU SALES	31	9,593	57,437	26,646	48,201
TOTAL HAR ADMIN	1	9,593	1,031,529	123,997	401,678
GEN ADMIN - SALES	37,552	9,053	894,033	197,736	919,697
SALE PREP	33,569	15,761	430,294	407,645	1,632,502
ANALY/DOC	163	299	245,345	74,364	859,613
APPEALS/LIT	0	0	81,200	0	271
OTHER RES SUP	0	0	0	0	0
BD FUND	1	0	107,833	14,991	827,602
COOP RD MAINT	0	0	96,776	23,744	69,037
UNDEP RD WRITEOFF	0	0	0	0	0
RD DEP EXP					
TOTAL RD DES/CON	619	2,181	334,918	13,282	661,284
TOTAL RD PC	0	0	663,740	9,200	490,776
TOTAL APP & LIT	0	0	0	0	0
TOTAL TM SALE EXP	71,905	36,887	3,885,668	864,959	5,862,460
TM PLANNING	0	0	0	0	0
TRAN PLANNING	1,552	(1)	165,810	27,476	195,371
SILVI EXAM	2,493	6,338	27,750	78,071	99,147
GENET TREE IMP	0	0	377,424	0	201,612
APPROP REFOR	97,826	15,045	2,718	9,147	73,298
KV REFOR	0	5,058	22,342	17,734	101,530
APPROP STAND IMP	70,953	7,441	4,396	6,471	38,088
KV STAND IMP	6,735	4,214	16,708	14,679	53,057
FACIL DEP	33	(1)	56,360	1,467	24,945
TOTAL TM PROG EXP	179,592	38,094	673,508	155,045	787,048
TOTAL DIRECT EXP	251,497	74,981	4,559,176	1,020,004	6,649,508
INDIRECT EXP					
APP & LIT	0	0	411,616	0	0
TOTAL TM SALE INDIR	0	0	411,616	0	0
TM PROG GEN AD	212,629	12,996	1,368,197	59,164	899,324
TOT TM PROG IND	212,629	12,996	1,368,197	59,164	899,324
TOT INDIR EXP	212,629	12,996	1,779,813	59,164	899,324
TOTAL TM EXPENSE	464,126	87,977	6,338,989	1,079,168	7,548,832
EXTRAORDINARY EXPENSES	0	0	0	0	0
GAIN/LOSS	(445,431)	(80,580)	(4,525,672)	2,789,377	(1,965,221)
VOL HARVEST	218	212	13,975	12,483	26,039

APPENDIX A
STATEMENT OF TIMBER SALE REVENUES AND EXPENSES
BY NATIONAL FOREST
FISCAL YEAR 1995

FORESTS	LASSEN	LOS PADRES	MENDOCINO	MODOC	SIX RIVERS
REVENUE					
TIMBER SALES	25,226,687	3,568	31,229	9,722,653	2,833,124
PURCH ROAD CREDIT	379,189	0	0	101,112	20,115
ASSOC CHARGES	1,352,032	2,653	426	463,811	111,343
INT & PENALTIES	29,626	0	0	71	51,926
TOTAL REVENUE	26,987,534	6,221	31,655	10,287,647	3,016,508
DIRECT TM SALE EXP					
TC SALES	837,732	0	62,614	54,536	495,178
FS SALES	582,566	0	34,429	158,345	153,754
PU SALES	93,479	7,902	(45)	0	67,689
TOTAL HAR ADMIN	1,513,777	7,902	96,998	212,881	716,621
GEN ADMIN - SALES	891,637	8,577	273,413	1,164,668	813,243
SALE PREP	2,524,850	42,231	88,609	1,859,784	406,055
ANALY/DOC	859,553	6,296	24,875	574,161	243,287
APPEALS/LIT	8,116	0	186	1,841	2,094
OTHER RES SUP	0	0	0	0	0
BD FUND	988,246	1,326	25,621	384,364	424,285
COOP RD MAINT	162,143	204	18,962	124,364	180,824
UNDEP RD WRITEOFF	0	0	0	0	0
RD DEP EXP					
TOTAL RD DES/CON	212,486	411	412,017	251,959	447,694
TOTAL RD PC	183,072	0	382,825	151,909	313,597
TOTAL APP & LIT	0	0	0	0	0
TOTAL TM SALE EXP	7,343,880	66,947	1,323,506	4,725,931	3,547,700
TM PLANNING	0	0	0	0	0
TRAN PLANNING	415,309	0	7,716	5,409	79,413
SILVI EXAM	157,824	1,870	12,327	145,123	48,037
GENET TREE IMP	144,281	0	80,470	84,089	168,311
APPROP REFOR	29,174	75,882	1,337	52,491	7,734
KV REFOR	150,394	1,464	2,088	93,729	20,130
APPROP STAND IMP	41,784	8,262	725	38,059	6,345
KV STAND IMP	100,404	0	1,636	98,083	6,689
FACIL DEP	83	5,319	7,768	4,335	3,804
TOTAL TM PROG EXP	1,039,253	92,797	114,067	521,318	340,463
TOTAL DIRECT EXP	8,383,133	159,744	1,437,573	5,247,249	3,888,163
INDIRECT EXP					
APP & LIT	272	0	0	32	49,935
TOTAL TM SALE INDIR	272	0	0	32	49,935
TM PROG GEN AD	356,281	36,096	703,061	498,906	649,951
TOTAL TM PROG IND	356,281	36,096	703,061	498,906	649,951
TOTAL INDIR EXP	356,553	36,096	703,061	498,938	699,886
TOTAL TM EXPENSE	8,739,686	195,840	2,140,634	5,746,187	4,588,049
EXTRAORDINARY EXPENSES	0	0	0	3,518,764	0
GAIN/LOSS	18,247,848	(189,619)	(2,108,979)	1,022,696	(1,571,541)
VOL HARVEST	94,484	178	1,053	49,195	13,041

APPENDIX A
STATEMENT OF TIMBER SALE REVENUES AND EXPENSES
BY NATIONAL FOREST
FISCAL YEAR 1995

FORESTS	PLUMAS	SAN BERNARDINO	SEQUOIA	SHASTA-TRINITY	SIERRA
REVENUE					
TIMBER SALES	22,444,414	158,154	3,543,894	9,271,016	4,873,572
PURCH ROAD CREDIT	1,023,150	0	136,736	466,573	206,921
ASSOC CHARGES	1,312,730	6,234	193,445	1,753,134	237,941
INT & PENALTIES	6,661	0	3,107	303	18,488
TOTAL REVENUE	24,786,955	164,388	3,877,182	11,491,026	5,336,922
DIRECT TM SALE EXP					
TC SALES	494,225	0	42,279	153,382	158,730
FS SALES	16,263	52,049	200,286	277,213	506,827
PU SALES	1,288	11,172	4,190	12,667	5,619
TOTAL HAR ADMIN	511,776	63,221	246,755	443,262	671,176
GEN ADMIN - SALES	1,319,903	93,583	681,837	978,082	1,204,528
SALE PREP	2,068,222	97,628	852,546	1,557,841	581,545
ANALY/DOC	1,757,560	6,542	471,950	336,092	131,696
APPEALS/LIT	20,997	0	29,168	2,279	544
OTHER RES SUP	0	0	0	0	0
BD FUND	1,326,513	1,386	332,014	539,420	281,331
COOP RD MAINT	520,391	611	11,310	179,207	255,052
UNDEP RD WRITEOFF	0	0	0	0	0
RD DEP EXP					
TOTAL RD DES/CON	602,484	263	335,314	744,274	647,791
TOTAL RD PC	1,008,848	0	26,584	969,012	410,696
TOTAL APP & LIT	0	0	0	0	0
TOTAL TM SALE EXP	9,136,694	263,234	2,987,478	5,749,469	4,184,359
TM PLANNING	0	0	0	0	0
TRAN PLANNING	117,735	11,820	149,002	151,249	83,956
SILVI EXAM	354,060	6,350	69,840	105,660	62,273
GENET TREE IMP	148,229	7	89,494	190,611	99,211
APPROP REFOR	32,513	158,998	20,526	79,219	15,183
KV REFOR	69,636	1,747	26,027	140,594	43,607
APPROP STAND IMP	16,647	17,486	11,264	35,661	11,452
KV STAND IMP	61,161	8,751	17,369	53,352	28,802
FACIL DEP	12,700	1,934	10,209	33,420	13,160
TOTAL TM PROG EXP	812,681	207,093	393,731	789,766	357,644
TOTAL DIRECT EXP	9,949,375	470,327	3,381,209	6,539,235	4,542,003
INDIRECT EXP					
APP & LIT	0	0	314,836	0	0
TOTAL TM SA INDIR	0	0	314,836	0	0
TM PROG GEN AD	1,121,198	115,214	642,119	1,078,873	1,073,324
TOTAL TM PROG IND	1,121,198	115,214	642,119	1,078,873	1,073,324
TOTAL INDIR EXP	1,121,198	115,214	956,955	1,078,873	1,073,324
TOTAL TM EXPENSE	11,070,573	585,541	4,338,164	7,618,108	5,615,327
EXTRAORDINARY EXPENSES	0	0	0	0	0
GAIN/LOSS	13,716,382	(421,153)	(460,982)	3,872,918	(278,405)
VOL HARVEST	73,917	2,307	16,980	30,822	20,710

APPENDIX A
STATEMENT OF TIMBER SALE REVENUES AND EXPENSES
BY NATIONAL FOREST
FISCAL YEAR 1995

FORESTS	STANISLAUS	TAHOE	LTBMU	RO	TOTAL
REVENUE					
TIMBER SALES	10,793,286	4,063,360	245,427	0	103,372,702
PURCH ROAD CREDIT	239,221	593,939	676	0	3,656,728
ASSOC CHARGES	436,582	858,842	116,166	0	7,481,910
INT & PENALTIES	6,340	138	(7,027)	0	113,213
TOTAL REVENUE	11,475,429	5,516,279	355,242	0	114,624,553
DIRECT TM SALE EXP					
TC SALES	368,863	331,593	0	359,368	3,992,350
FS SALES	246,695	975,708	399,471	85,679	4,480,305
PU SALES	403	31,884	0	0	378,156
TOTAL HAR ADMIN	615,961	1,339,185	399,471	445,047	8,850,831
GEN ADMIN - SALES	1,385,029	929,942	199,352	2,600,435	14,602,300
SALE PREP	1,560,849	1,489,702	112,181	668,299	16,430,113
ANALY/DOC	628,925	627,926	65,356	57,224	6,971,227
APPEALS/LIT	1,998	7,100	51	2,446	158,291
OTHER RES SUP	0	0	0	0	0
BD FUND	667,871	303,317	13,372	47,392	6,286,885
COOP RD MAINT	218,803	140,550	8,944	0	2,010,922
UNDEP RD WRITEOFF	0	0	0	0	0
RD DEP EXP					
TOTAL RD DES/CON	852,206	518,886	2,833	1	6,040,903
TOTAL RD PC	445,704	428,381	0	0	5,484,344
TOTAL APP & LIT	0	0	0	0	0
TOTAL TM SALE EXP	6,377,346	5,784,989	801,560	3,820,844	66,835,816
TM PLANNING	0	0	0	0	0
TRAN PLANNING	144,723	251,264	231	443,565	2,251,600
SILVI EXAM	196,631	116,993	(287,089)	1,383,986	2,587,684
GENET TREE IMP	102,932	251,626	0	47,613	1,985,910
APPROP REFOR	87,234	27,888	0	500,940	1,287,153
KV REFOR	136,190	54,737	0	180,011	1,067,018
APPROP STAND IMP	32,614	20,921	0	54,817	423,386
KV STAND IMP	49,003	32,507	0	27,490	580,640
FACIL DEP	12,022	17,266	52	39,514	244,390
TOTAL TM PROG EXP	761,349	773,202	(286,806)	2,677,936	10,427,781
TOTAL DIRECT EXP	7,138,695	6,558,191	514,754	6,498,780	77,263,597
INDIRECT EXP					
APP & LIT	1,241	852	0	55,100	833,884
TOTAL TM SALE INDIR	1,241	852	0	55,100	833,884
TM PROG GEN AD	1,688,033	646,765	65,779	4,657,267	15,885,177
TOTAL TM PROG IND	1,688,033	646,765	65,779	4,657,267	15,885,177
TOTAL INDIR EXP	1,689,274	647,617	65,779	4,712,367	16,719,016
TOTAL TM EXPENSE	8,827,969	7,205,808	580,553	11,211,147	93,982,678
EXTRAORDINARY EXPENSES	0	0	0	0	3,518,764
GAIN/LOSS	2,647,460	(1,689,529)	(225,311)	(11,211,147)	17,123,111
VOL HARVEST	46,870	42,981	7,856	0	453,321

NOTE: Incorrect Timber Program Expenses data was reported to the Washington Office for the Lake Tahoe Basin Management Unit in 1995. The Regional report was corrected last year but these cost were not adjusted back on the Washington Office report.

APPENDIX B
UNIT VALUE INFORMATION
BY NATIONAL FOREST
FISCAL YEAR 1995

FORESTS	ANGELES	CLEVELAND	ELDORADO	INYO	KLAMATH
REVENUE					
TIMBER SALES	85.75	34.89	120.07	305.35	178.45
PURCH ROAD CREDIT	0.00	0.00	3.52	0.00	16.89
ASSOC CHARGES	0.00	0.00	6.16	4.50	18.98
INT & PENALTIES	0.00	0.00	0.0007	0.05	0.11
TOTAL REVENUE	85.75	34.89	129.75	309.90	214.43
DIRECT TM SALE EXP					
TC SALES	-0.13	0.00	37.40	-0.42	4.47
FS SALES	0.00	0.00	32.31	8.21	9.10
PU SALES	0.14	45.25	4.10	2.13	1.85
TOTAL HAR ADMIN	0.0004	45.25	73.81	9.93	15.42
GEN ADMIN - SALES	172.25	42.70	63.97	15.84	35.32
SALE PREP	153.98	74.34	30.80	32.66	62.70
ANALY/DOC	0.75	1.41	17.56	5.96	33.01
APPEALS/LIT	0.00	0.00	5.81	0.00	0.01
BD FUND	0.0004	0.00	7.72	1.20	31.78
COOP RD MAINT	0.00	0.00	6.92	1.90	2.65
UNDEP RD WRITEOFF	0.00	0.00	0.00	0.00	0.00
RD DEP EXP					
TOTAL RD DES/CON	2.84	10.28	23.96	1.07	25.40
TOTAL RD PC	0.00	0.00	47.49	0.73	18.85
TOTAL APP & LIT	0.00	0.00	0.00	0.00	0.00
TOTAL TM SALE EXP	329.83	173.99	278.04	69.29	225.14
TRAN PLANNING	7.12	-0.0004	11.87	2.20	7.51
SILVI EXAM	11.44	29.90	1.99	6.25	3.80
GENET TREE IMP	0.00	0.00	27.01	0.00	7.74
APPROP REFOR	448.74	70.97	0.19	0.73	2.81
KV REFOR	0.00	23.85	1.59	1.42	3.90
APPROP STAND IMP	325.47	35.09	0.31	0.52	1.46
KV STAND IMP	30.89	19.88	1.19	1.18	2.04
FACIL DEP	0.15	-0.0004	4.04	0.12	0.96
TOTAL TM PROG EXP	823.82	179.68	48.19	12.42	30.22
TOTAL DIRECT EXP	1153.65	353.68	326.23	81.71	255.36
INDIRECT EXP					
APP & LIT	0.00	0.00	29.45	0.00	0.00
TOTAL TM SALE INDIR	0.00	0.00	29.45	0.00	0.00
TM PROG GEN AD	975.36	61.30	97.90	4.73	35.54
TOTAL TM PROG IND	975.36	61.30	97.90	4.73	35.54
TOTAL INDIR EXP	975.36	61.30	127.35	4.73	35.54
TOTAL TM EXPENSE	2129.02	414.98	453.59	86.45	289.90
EXTRAORDINARY EXP	0.00	0.00	0.00	0.00	0.00
GAIN/LOSS	-2043.26	-380.09	-323.84	223.45	-75.47
VOL HARVEST	218	212	13,975	12,483	26,039

APPENDIX B
UNIT VALUE INFORMATION
BY NATIONAL FOREST
FISCAL YEAR 1995

FORESTS	LASSEN	LOS PADRES	MENDOCINO	MODOC	SIX RIVERS
REVENUE					
TIMBER SALES	266.99	20.04	29.66	197.63	217.25
PURCH ROAD CREDIT	4.02	0.00	0.00	2.05	1.54
ASSOC CHARGES	14.31	14.90	0.40	9.42	8.53
INT & PENALTIES	0.31	0.00	0.00	0.001	3.98
TOTAL REVENUE	285.63	34.94	30.06	209.11	231.30
DIRECT TM SALE EXP					
TC SALES	8.87	0.00	59.46	1.10	37.97
FS SALES	6.17	0.00	32.69	3.22	11.79
PU SALES	0.98	44.39	-0.04	0.00	5.19
TOTAL HAR ADMIN	16.02	44.39	92.11	4.32	54.95
GEN ADMIN - SALES	9.44	48.19	259.65	23.68	62.37
SALE PREP	26.72	237.25	84.15	37.81	31.14
ANALY/DOC	9.10	35.37	23.62	11.67	18.66
APPEALS/LIT	0.08	0.00	0.18	0.03	0.16
BD FUND	10.46	7.45	24.33	2.53	32.54
COOP RD MAINT	1.71	1.15	18.01	0.00	18.86
UNDEP RD WRITEOFF	0.00	0.00	0.00	0.00	0.00
RD DEP EXP					
TOTAL RD DES/CON	2.25	2.30	391.28	5.12	34.32
TOTAL RD PC	1.94	0.00	363.56	3.09	24.04
TOTAL APP & LIT	0.00	0.00	0.00	0.00	0.00
TOTAL TM SALE EXP	77.72	376.10	1,256.89	96.06	272.04
TRAN PLANNING	4.40	0.00	7.33	0.11	6.09
SILVI EXAM	1.67	10.50	11.71	2.95	3.68
GENET TREE IMP	1.53	0.00	76.42	1.71	12.90
APPROP REFOR	0.30	426.31	1.27	1.07	0.59
KV REFOR	1.59	8.22	1.98	1.90	1.54
APPROP STAND IMP	0.44	46.42	0.68	0.77	0.49
KV STAND IMP	1.06	0.00	1.55	1.99	0.52
FACIL DEP	0.0008	29.88	7.38	0.09	0.29
TOTAL TM PROG EXP	10.99	521.33	108.32	10.59	26.10
TOTAL DIRECT EXP	88.72	897.43	1,365.21	106.66	298.14
INDIRECT EXP					
APP & LIT	0.002	0.00	0.00	0.0006	3.82
TOTAL TM SALE INDIR	0.002	0.00	0.00	0.0006	3.82
TM PROG GEN AD	3.77	202.78	667.67	10.14	49.83
TOTAL TM PROG IND	3.77	202.78	667.67	10.14	49.83
TOTAL INDIR EXP	3.78	202.78	667.67	10.14	53.66
TOTAL TM EXPENSE	92.49	1,100.22	2,032.89	116.80	351.81
EXTRAORDINARY EXP	0.00	0.00	0.00	71.53	0.00
GAIN/LOSS	193.13	-1,065.27	-2,002.82	20.78	-120.50
VOL HARVEST	94,484	178	1,053	49,195	13,041

APPENDIX B
UNIT VALUE INFORMATION
BY NATIONAL FOREST
FISCAL YEAR 1995

FORESTS	PLUMAS	SAN BERNARDINO	SEQUOIA	SHASTA-TRINITY	SIERRA
REVENUE					
TIMBER SALES	303.64	68.55	208.71	300.80	235.32
PURCH ROAD CREDIT	13.84	0.00	8.05	15.13	9.99
ASSOC CHARGES	17.76	2.70	11.39	56.88	11.49
INT & PENALTIES	0.09	0.00	0.18	0.0009	0.89
TOTAL REVENUE	335.33	71.25	228.33	372.81	257.69
DIRECT TM SALE EXP					
TC SALES	6.69	0.00	2.49	4.98	7.66
FS SALES	0.22	22.56	11.80	8.99	24.47
PU SALES	0.01	4.84	0.24	0.41	0.27
TOTAL HAR ADMIN	6.92	27.40	14.53	14.38	32.40
GEN ADMIN - SALES	17.86	40.56	40.16	31.73	58.16
SALE PREP	27.99	42.32	50.21	50.54	28.08
ANALY/DOC	23.78	2.84	27.79	10.91	6.36
APPEALS/LIT	0.28	0.00	1.72	0.07	0.03
BD FUND	17.94	0.60	19.55	17.50	13.58
COOP RD MAINT	7.04	0.27	0.67	5.81	12.32
UNDEP RD WRITEOFF	0.00	0.00	0.00	0.00	0.00
RD DEP EXP					
TOTAL RD DES/CON	8.15	0.11	19.75	24.15	31.28
TOTAL RD PC	13.64	0.00	1.56	31.44	19.83
TOTAL APP & LIT	0.00	0.00	0.00	0.00	0.00
TOTAL TM SALE EXP	123.60	114.10	175.94	186.53	202.04
TRAN PLANNING	1.59	5.12	8.78	4.91	4.05
SILVI EXAM	4.79	2.75	4.12	3.43	3.01
GENET TREE IMP	2.01	0.003	5.27	6.18	4.79
APPROP REFOR	0.44	68.92	1.20	2.57	0.73
KV REFOR	0.94	0.76	1.53	4.56	2.11
APPROP STAND IMP	0.22	7.58	0.66	1.16	0.55
KV STAND IMP	0.83	3.79	1.02	1.73	1.39
FACIL DEP	0.17	0.84	0.60	1.08	0.64
TOTAL TM PROG EXP	10.99	89.76	23.18	25.62	17.27
TOTAL DIRECT EXP	134.60	203.86	199.12	212.15	219.31
INDIRECT EXP					
APP & LIT	0.00	0.00	18.54	0.00	0.00
TOTAL TM SALE INDIR	0.00	0.00	18.54	0.00	0.00
TM PROG GEN AD	15.17	49.94	37.81	35.01	51.83
TOTAL TM PROG IND	15.17	49.94	37.81	35.01	51.83
TOTAL INDIR EXP	15.17	49.94	56.35	35.01	51.83
TOTAL TM EXPENSE	149.77	253.81	255.48	247.16	271.14
EXTRAORDINARY EXP	0.00	0.00	0.00	0.00	0.00
GAIN/LOSS	185.56	-182.55	-27.14	125.65	-13.45
VOL HARVEST	73,917	2,307	16,980	30,822	20,710

APPENDIX B
UNIT VALUE INFORMATION
BY NATIONAL FOREST
FISCAL YEAR 1995

FORESTS	STANISLAUS	TAHOE	LTBMU	TOTAL
REVENUE				
TIMBER SALES	230.28	94.54	31.24	228.03
PURCH ROAD CREDIT	5.10	13.82	0.08	8.07
ASSOC CHARGES	9.31	19.98	14.78	16.50
INT & PENALTIES	0.14	0.003	-0.89	0.25
TOTAL REVENUE	244.83	128.34	45.21	252.85
DIRECT TM SALE EXP				
TC SALES	7.87	7.71	0.00	8.81
FS SALES	5.26	22.70	50.85	9.88
PU SALES	0.008	0.74	0.00	0.83
TOTAL HAR ADMIN	13.14	31.15	21.38	19.52
GEN ADMIN - SALES	29.55	21.64	25.37	32.21
SALE PREP	33.30	34.66	14.28	36.24
ANALY/DOC	13.42	14.61	8.32	15.38
APPEALS/LIT	0.04	0.16	0.006	0.35
BD FUND	14.25	7.07	1.71	13.87
COOP RD MAINT	4.67	3.27	1.14	4.44
UNDEP RD WRITEOFF	0.00	0.00	0.00	0.00
RD DEP EXP				
TOTAL RD DES/CON	18.18	12.07	0.36	13.33
TOTAL RD PC	9.51	9.96	0.00	12.10
TOTAL APP & LIT	0.00	0.00	0.00	0.00
TOTAL TM SALE EXP	136.06	134.59	102.03	147.44
TRAN PLANNING	3.08	5.85	0.03	4.97
SILVI EXAM	4.19	2.72	-36.54	5.71
GENET TREE IMP	2.19	5.85	0.00	4.38
APPROP REFOR	1.86	0.65	0.00	2.84
KV REFOR	2.91	1.27	0.00	2.35
APPROP STAND IMP	0.70	0.49	0.00	0.93
KV STAND IMP	1.05	0.76	0.00	1.28
FACIL DEP	0.26	0.40	0.006	0.54
TOTAL TM PROG EXP	16.24	17.99	-36.51	23.00
TOTAL DIRECT EXP	152.30	152.58	65.52	170.44
INDIRECT EXP				
APP & LIT	0.03	0.02	0.00	1.84
8OTAL TM SALE INDIR	0.03	0.02	0.00	1.84
TM PROG GEN AD	36.02	15.04	8.37	35.04
TOTAL TM PROG IND	36.02	15.04	8.37	35.04
TOTAL INDIR EXP	36.05	15.06	8.37	36.88
TOTAL TM EXPENSE	188.35	167.65	73.89	207.32
EXTRAORDINARY EXP	0.00	0.00	0.00	7.76
GAIN/LOSS	56.48	-39.31	-28.67	37.77
VOL HARVEST	46,870	42,981	7,856	453,321

NOTE: Incorrect Growing Stock data was reported to the Washington Office for the Lake Tahoe Basin Management Unit in 1993. The Regional report corrected these cost last year and adjusted back this year. Other resource support is now reported with Analysis/Documentation and Timber Planning is now reported in Sale Preparation.

APPENDIX C

ECONOMIC INFORMATION BY FOREST

FISCAL YEAR 1995

('000 of dollars)

DESCRIPTION	CALIFORNIA Angeles	CALIFORNIA Cleveland	CALIFORNIA Eldorado	CALIFORNIA Inyo	CALIFORNIA Klamath
I. PRESENT VALUE OF BENEFITS					
POSITIVE EFFECTS					
-1 TIMBER	$307	$7	$5,171	$3,538	$8,784
-2 RECREATION	$495	$0	$0	$0	$0
-3 WILDLIFE	$0	$0	$17	$0	$22
-4 FISHERIES	$0	$0	$0	$0	$0
-5 GRAZING	$0	$0	$71	$0	$4
-6 SOILS	$0	$0	$0	$0	$0
-7 WATER	$0	$0	$1,459	$0	$22
TOTAL POSITIVE EFFECTS	$802	$7	$6,718	$3,538	$8,832
NEGATIVE EFFECTS					
-1 TIMBER	$0	$0	$0	$0	$0
-2 RECREATION	$0	$0	$0	$0	$0
-3 WILDLIFE	$0	$0	$0	$0	$0
-4 FISHERIES	$0	$0	$0	$0	$0
-5 GRAZING	$0	$0	$0	$0	$0
-6 SOILS	$0	$0	$0	$0	$0
-7 WATER	$0	$0	$0	$0	$0
TOTAL NEGATIVE EFFECTS	$0	$0	$0	$0	$0
TOTAL PRESENT BENEFITS	$802	$7	$6,718	$3,538	$8,832
II. PRESENT VALUE OF COSTS					
-1 TIMBER	$460	$86	$6,074	$2,825	$8,408
-2 RECREATION	$2	$0	$6	$0	$0
-3 WILDLIFE	$0	$0	$58	$0	$0
-4 FISHERIES	$0	$0	$82	$0	$0
-5 GRAZING	$0	$0	$11	$0	$4
-6 SOILS	$0	$0	$0	$0	$0
-7 WATER	$0	$0	$18	$0	$0
-- ROADS	$0	$0	$1,425	$37	$1,562
TOTAL PRESENT COSTS	$462	$86	$7,674	$2,862	$9,974
III. PRESENT NET VALUE (PNV)					
-1 PNV for Timber Only	-$153	-$79	-$2,328	$676	-$1,186
TOTAL PNV FOR ALL RESOURCES	$340	-$79	-$956	$676	-$1,142

APPENDIX C
ECONOMIC INFORMATION BY FOREST
FISCAL YEAR 1995
('000 of dollars)

DESCRIPTION	CALIFORNIA Lassen	CALIFORNIA Los Padres	CALIFORNIA Mendocino	CALIFORNIA Modoc	CALIFORNIA Six Rivers
I. PRESENT VALUE OF BENEFITS					
POSITIVE EFFECTS					
-1 TIMBER	$112,369	$6	$30	$26,270	$3,246
-2 RECREATION	$0	$0	$0	$0	$0
-3 WILDLIFE	$519	$0	$0	$0	$0
-4 FISHERIES	$699	$0	$0	$0	$0
-5 GRAZING	$0	$0	$0	$211	$0
-6 SOILS	$0	$0	$0	$0	$0
-7 WATER	$19	$0	$0	$2,039	$0
TOTAL POSITIVE EFFECTS	$113,606	$6	$30	$28,520	$3,246
NEGATIVE EFFECTS					
-1 TIMBER	$0	$0	$0	$0	$0
-2 RECREATION	$0	$0	$0	$0	$0
-3 WILDLIFE	$115	$0	$0	$0	$0
-4 FISHERIES	$9	$0	$0	$0	$0
-5 GRAZING	$0	$0	$0	$0	$0
-6 SOILS	$0	$0	$0	$0	$0
-7 WATER	$0	$0	$0	$0	$0
TOTAL NEGATIVE EFFECTS	$124	$0	$0	$0	$0
TOTAL PRESENT BENEFITS	$113,482	$6	$30	$28,520	$3,246
II. PRESENT VALUE OF COSTS					
-1 TIMBER	$33,984	$350	$3,820	$13,750	$3,909
-2 RECREATION	$0	$0	$0	$0	$0
-3 WILDLIFE	$517	$0	$0	$0	$0
-4 FISHERIES	$440	$0	$0	$0	$0
-5 GRAZING	$0	$0	$0	$168	$0
-6 SOILS	$0	$0	$0	$0	$0
-7 WATER	$0	$0	$0	$0	$0
-- ROADS	$2,009	$0	$240	$1,667	$761
TOTAL PRESENT COSTS	$36,950	$350	$4,060	$15,585	$4,671
III. PRESENT NET VALUE (PNV)					
-1 PNV for Timber Only	$76,376	-$344	-$4,030	$10,853	-$1,425
TOTAL PNV FOR ALL RESOURCES	$76,532	-$344	-$4,030	$12,935	-$1,425

APPENDIX C
ECONOMIC INFORMATION BY FOREST
FISCAL YEAR 1995
('000 of dollars)

DESCRIPTION	CALIFORNIA Plumas	CALIFORNIA San Bernadino	CALIFORNIA Sequoia	CALIFORNIA Shasta Trinity	CALIFORNIA Sierra
I. PRESENT VALUE OF BENEFITS					
POSITIVE EFFECTS					
-1 TIMBER	$39,488	$164	$4,032	$14,997	$6,093
-2 RECREATION	$0	$0	$833	$0	$0
-3 WILDLIFE	$0	$0	$419	$212	$0
-4 FISHERIES	$0	$0	$0	$0	$0
-5 GRAZING	$83	$0	$6	$2	$0
-6 SOILS	$0	$0	$485	$0	$0
-7 WATER	$1,091	$0	$118	$340	$873
TOTAL POSITIVE EFFECTS	$40,663	$164	$5,893	$15,552	$6,966
NEGATIVE EFFECTS					
-1 TIMBER	$0	$0	$0	$0	$0
-2 RECREATION	$0	$0	$0	$0	$0
-3 WILDLIFE	$0	$0	$0	$0	$0
-4 FISHERIES	$0	$0	$0	$0	$0
-5 GRAZING	$0	$0	$0	$0	$0
-6 SOILS	$0	$0	$0	$0	$0
-7 WATER	$0	$0	$0	$0	$0
TOTAL NEGATIVE EFFECTS	$0	$0	$0	$0	$0
TOTAL PRESENT BENEFITS	$40,663	$164	$5,893	$15,552	$6,966
II. PRESENT VALUE OF COSTS					
-1 TIMBER	$13,043	$576	$5,649	$10,947	$4,291
-2 RECREATION	$0	$0	$6	$0	$0
-3 WILDLIFE	$0	$0	$0	$0	$45
-4 FISHERIES	$0	$0	$0	$0	$32
-5 GRAZING	$98	$0	$6	$3	$13
-6 SOILS	$0	$0	$0	$0	$0
-7 WATER	$0	$0	$0	$0	$38
-- ROADS	$2,213	$0	$664	$973	$305
TOTAL PRESENT COSTS	$15,355	$576	$6,325	$11,923	$4,724
III. PRESENT NET VALUE (PNV)					
-1 PNV for Timber Only	$24,232	-$412	-$2,281	$3,077	$1,497
TOTAL PNV FOR ALL RESOURCES	$25,308	-$412	$432	$3,629	$2,243

APPENDIX C
ECONOMIC INFORMATION BY FOREST
FISCAL YEAR 1995
('000 of dollars)

DESCRIPTION	CALIFORNIA Stanislaus	CALIFORNIA Tahoe	CALIFORNIA Lake Tahoe Basin	REGIONAL TOTALS /1
I. PRESENT VALUE OF BENEFITS				
POSITIVE EFFECTS				
-1 TIMBER	$12,631	$29,228	$355	$266,717
-2 RECREATION	$0	$0	$0	$1,328
-3 WILDLIFE	$0	$0	$0	$1,189
-4 FISHERIES	$0	$0	$0	$699
-5 GRAZING	$0	$4	$0	$381
-6 SOILS	$14	$0	$0	$499
-7 WATER	$190	$171	$0	$6,323
TOTAL POSITIVE EFFECTS	$12,835	$29,402	$355	$277,135
NEGATIVE EFFECTS				
-1 TIMBER	$0	$0	$0	$0
-2 RECREATION	$0	$0	$0	$0
-3 WILDLIFE	$0	$0	$0	$115
-4 FISHERIES	$0	$0	$0	$9
-5 GRAZING	$0	$0	$0	$0
-6 SOILS	$0	$0	$0	$0
-7 WATER	$0	$0	$0	$0
TOTAL NEGATIVE EFFECTS	$0	$0	$0	$124
TOTAL PRESENT BENEFITS	$12,835	$29,402	$355	$277,011
II. PRESENT VALUE OF COSTS				
-1 TIMBER	$8,113	$24,680	$1,069	$142,034
-2 RECREATION	$0	$0	$0	$14
-3 WILDLIFE	$0	$0	$0	$620
-4 FISHERIES	$0	$0	$0	$553
-5 GRAZING	$16	$3	$0	$322
-6 SOILS	$0	$0	$0	$0
-7 WATER	$0	$0	$0	$56
-- ROADS	$900	$1,603	$151	$14,510
TOTAL PRESENT COSTS	$9,029	$26,286	$1,219	$158,110
III. PRESENT NET VALUE (PNV)				
PNV for Timber (w/ Road Costs)	$3,618	$2,945	-$864	$110,173
TOTAL PNV FOR ALL RESOURCES	$3,806	$3,116	-$864	$118,901

Note: Missing values represent information that either cannot be quantified or is not available.

APPENDIX D

EMPLOYMENT, INCOME, AND PROGRAM LEVEL

BY NATIONAL FOREST

Fiscal Year 1995

CATEGORY DESCRIPTION	CALIFORNIA Angeles	CALIFORNIA Cleveland	CALIFORNIA Eldorado	CALIFORNIA Inyo	CALIFORNIA Klamath
I. EMPLOYMENT & INCOME INFORMATION					
-1 Timber Related Employment (Jobs)	10	10	110	120	280
-2 Employment Related Income ($000)	460	460	5,060	5,520	12,880
-3 Federal Income Tax Generated ($000)	70	70	760	830	1,930
II. TIMBER PROGRAM INFORMATION					
-1 Volume Offered (MMBF)	0.6	0.2	15.8	5.8	36.8
-2 Volume Sold and Awarded (MMBF)	0.2	0.2	10.0	4.4	25.7
-3 Volume Harvested (MMBF)					
--Sawtimber	0.0	0.0	6.6	9.7	18.9
--Roundwood	0.0	0.0	0.1	0.0	0.1
--Firewood	0.2	0.2	5.5	2.8	3.4
--Other	0.0	0.0	1.9	0.0	3.7
Total Harvest Volume	0.2	0.2	14.0	12.5	26.0
-4 Total Area Harvested (acres)	210	0	120	5,737	2,780
-5 Free Use Firewood (MMBF)	0	0	0	0	0.2
-6 Nonconvertible Products					
--Christmas Trees Cut (trees)	0	0	3,850	1	3,014
--Other Products Removed ($000)	$5	$1	$2	$1	$9
-7 Regeneration Treatment (acres)	331	35	4,945	205	4,550
-8 Timber Stand Improvement (acres)	785	88	6,820	550	5,496
III. FOREST ROAD INFORMATION					
-1 Road Construction (miles)					
--Appropriated Construction	0	0	0	0	0
--Purchaser Credit Construction	0	0	0	0	0
Total Construction	0	0	0	0	0
-2 Road Reconstruction (miles)					
--Appropriated Reconstruction	0	0	0	0	44
--Purchaser Credit Reconstruction	0	0	0	0	22
Total Reconstruction	0	0	0	0	66

APPENDIX D

EMPLOYMENT, INCOME, AND PROGRAM LEVEL

BY NATIONAL FOREST

Fiscal Year 1995

CATEGORY DESCRIPTION	CALIFORNIA Lassen	CALIFORNIA Los Padres	CALIFORNIA Mendocino	CALIFORNIA Modoc	CALIFORNIA Six Rivers
I. EMPLOYMENT & INCOME INFORMATION					
-1 Timber Related Employment (Jobs)	1,070	10	10	570	140
-2 Employment Related Income ($000)	49,220	460	460	26,220	6,440
-3 Federal Income Tax Generated ($000)	7,380	70	70	3,930	970
II. TIMBER PROGRAM INFORMATION					
-1 Volume Offered (MMBF)	104.0	0.0	7.1	42.8	4.0
-2 Volume Sold and Awarded (MMBF)	48.4	0.1	3.7	32.8	4.3
-3 Volume Harvested (MMBF)					
--Sawtimber	63.7	0.0	0.1	19.1	9.8
--Roundwood	0.1	0.0	0.0	0.0	0.0
--Firewood	6.3	0.2	1.0	1.9	1.8
--Other	24.3	0.0	0.0	28.1	1.4
Total Harvest Volume	94.5	0.2	1.1	49.2	13.0
-4 Total Area Harvested (acres)	20,407	0	0	2,236	0
-5 Free Use Firewood (MMBF)	0	0	0	0.9	1.3
-6 Nonconvertible Products					
--Christmas Trees Cut (trees)	3,732	0	1,682	522	2,578
--Other Products Removed ($000)	$1	$0	$2	$1	$6
-7 Regeneration Treatment (acres)	2,583	120	1,062	2,017	1,125
-8 Timber Stand Improvement (acres)	8,011	85	3,675	4,118	3,378
III. FOREST ROAD INFORMATION					
-1 Road Construction (miles)					
--Appropriated Construction	0	0	6	0	0
--Purchaser Credit Construction	3	0	0	0	0
Total Construction	3	0	6	0	0
-2 Road Reconstruction (miles)					
--Appropriated Reconstruction	0	0	0	0	0
--Purchaser Credit Reconstruction	50	0	6	1	0
Total Reconstruction	50	0	6	1	0

APPENDIX D

EMPLOYMENT, INCOME, AND PROGRAM LEVEL

BY NATIONAL FOREST

Fiscal Year 1995

CATEGORY DESCRIPTION	CALIFORNIA Plumas	CALIFORNIA San Bernardino	CALIFORNIA Sequoia	CALIFORNIA Shasta-Trinity	CALIFORNIA Sierra
I. EMPLOYMENT & INCOME INFORMATION					
-1 Timber Related Employment (Jobs)	820	20	170	330	200
-2 Employment Related Income ($000)	37,720	920	7,820	15,180	9,200
-3 Federal Income Tax Generated ($000)	5,660	140	1,170	2,280	1,380
II. TIMBER PROGRAM INFORMATION					
-1 Volume Offered (MMBF)	40.9	2.0	20.7	51.4	44.1
-2 Volume Sold and Awarded (MMBF)	26.4	1.9	6.7	29.9	37.3
-3 Volume Harvested (MMBF)					
--Sawtimber	56.9	0.0	12.0	25.3	13.9
--Roundwood	0.0	0.0	0.0	0.0	0.0
--Firewood	6.2	2.2	3.4	3.8	5.3
--Other	10.9	0.1	1.5	1.8	1.4
Total Harvest Volume	73.9	2.3	17.0	30.8	20.7
-4 Total Area Harvested (acres)	22,705	0	14,237	3,604	493
-5 Free Use Firewood (MMBF)	0	0	0	1.3	0
-6 Nonconvertible Products					
--Christmas Trees Cut (trees)	5,048	0	0	6,076	4,730
--Other Products Removed ($000)	$4	$3	$1	$1	$1
-7 Regeneration Treatment (acres)	3,508	154	1,988	2,947	2,476
-8 Timber Stand Improvement (acres)	3,508	562	4,333	9,119	4,303
III. FOREST ROAD INFORMATION					
-1 Road Construction (miles)					
--Appropriated Construction	0	0	0	0	0
--Purchaser Credit Construction	7	0	0	2	0
Total Construction	7	0	0	2	0
-2 Road Reconstruction (miles)					
--Appropriated Reconstruction	0	0	0	0	0
--Purchaser Credit Reconstruction	18	0	8	10	43
Total Reconstruction	18	0	8	10	43

APPENDIX D

EMPLOYMENT, INCOME, AND PROGRAM LEVEL

BY NATIONAL FOREST

Fiscal Year 1995

CATEGORY DESCRIPTION	CALIFORNIA Stanislaus	CALIFORNIA Tahoe	CALIFORNIA Lake Tahoe Basin	REGIONAL TOTALS /1
I. EMPLOYMENT & INCOME INFORMATION				
-1 Timber Related Employment (Jobs)	480	500	80	4,930
-2 Employment Related Income ($000)	22,080	23,000	3,600	226,780
-3 Federal Income Tax Generated ($000)	3,310	3,450	550	34,020
II. TIMBER PROGRAM INFORMATION				
-1 Volume Offered (MMBF)	42.2	120.6	5.7	544.4
-2 Volume Sold and Awarded (MMBF)	26.8	120.6	0.9	380.1
-3 Volume Harvested (MMBF)				
--Sawtimber	32.7	22.9	5.5	297
--Roundwood	0	0.0	0.0	0.4
--Firewood	8.4	1.8	1.1	55.4
--Other	5.8	18.3	1.3	100.4
Total Harvest Volume	46.9	36.4	7.9	453.3
-4 Total Area Harvested (acres)	3,824	7,307	5,025	88,685
-5 Free Use Firewood (MMBF)	0	0.1	0.5	4.3
-6 Nonconvertible Products				
--Christmas Trees Cut (trees)	0	447	0	31,680
--Other Products Removed ($000)	$0	$2	$0	$40
-7 Regeneration Treatment (acres)	6,293	3,685	226	38,250
-8 Timber Stand Improvement (acres)	3,471	7,419	310	66,575
III. FOREST ROAD INFORMATION				
-1 Road Construction (miles)				
--Appropriated Construction	0	0	0	6
--Purchaser Credit Construction	3	6	0	21
Total Construction	3	6	0	27
-2 Road Reconstruction (miles)				
--Appropriated Reconstruction	0	0	0	44
--Purchaser Credit Reconstruction	11	45	2	214
Total Reconstruction	11	45	2	258

Notes: "$000" denotes Thousands of Dollars

"MMBF" denotes Millions of Board Feet

Some Volume Sold: may have been "offered" in the previous fiscal year

Bold, underlined numbers indicate changes from the Washington Office Report due to more recent data.

APPENDIX E
TIMBER COMMODITY COMPONENT
Timber Sale Revenues and Expenses

Region 5
Fiscal Year 1995
(in thousands of dollars, except as noted)

Timber Commodity Program Component

National Forest	Revenues	Expenses	Net Revenue	MMBF /1 Harvest
Angeles	0	0	0	0.0
Cleveland	0	0	0	0.0
Eldorado	494	1,935	-1,441	3.1
Inyo	3,830	840	2,990	10.7
Klamath	1,751	2,325	-574	7.6
Lassen	17,566	3,848	13,718	38.3
Los Padres	0	0	0	0.0
Mendocino	0	63	-63	0.0
Modoc*	6,340	1,844	4,496	15.8
Six Rivers	2,964	4,020	-1,056	11.1
Plumas	23,238	8,305	14,933	52.7
San Bernardino	0	0	0	0.0
Sequoia	3,721	3,419	302	13.1
Shasta-Trinity	10,487	5,830	4,657	23.0
Sierra	3,981	2,674	1,307	9.3
Stanislaus	9,981	6,313	3,668	32.0
Tahoe	3,390	3,689	-299	24.3
Lake Tahoe Basin	0	0	0	0.0
Regional Office	0	6,252	-6,252	0.0
Regional Total	87,743	51,357	36,386	241.0

*Extraordinary Expenses on the Modoc National Forest was 1,156 for FY95. This expense was was not included in the Total Timber Expenses calculations. The total Region 5's Net Revenue for the Forest Timber Commodity Component was 35,230.

/1 MMBF = Millions of Board Feet

APPENDIX E
FOREST STEWARDSHIP COMPONENT
Timber Sale Revenues and Expenses

Region 5
Fiscal Year 1995
(in thousands of dollars, except as noted)

Forest Stewardship Program Component

National Forest	Revenues	Expenses	Net Revenue	MMBF /1 Harvest
Angeles	8	274	-266	0.0
Cleveland	2	40	-38	0.0
Eldorado	1,220	3,200	-1,980	6.0
Inyo	11	116	-105	.1
Klamath	3,802	4,669	-867	15.3
Lassen	9,325	4,482	4,843	50.0
Los Padres	0	99	-99	0.0
Mendocino	7	1,094	-1,087	0.1
Modoc*	3,933	3,817	116	32.3
Six Rivers	22	233	-211	0.2
Plumas	1,437	2,246	-809	15.0
San Bernardino	95	373	-278	0.8
Sequoia	89	341	-252	0.5
Shasta-Trinity	904	1,157	-253	3.4
Sierra	1,301	2,164	-863	6.1
Stanislaus	1,432	1,696	-264	7.7
Tahoe	2,077	3,352	-1,275	17.1
Lake Tahoe Basin	340	556	-216	7.4
Regional Office	0	4,066	-4,066	0.0
Regional Total	26,005	33,975	-7,970	162.0

*Extraordinary Expenses on the Modoc National Forest was 2,363 for FY95. This expense was was not included in the Total Timber Expenses calculations. The total Region 5's Net Revenue for the Forest Stewardship Component was 10,333.

/1 MMBF = Millions of Board Feet

APPENDIX E
PERSONAL USE COMPONENT
Timber Sale Revenues and Expenses

Region 5
Fiscal Year 1995
(in thousands of dollars, except as noted)

Personal Use Program Component

National Forest	Revenues	Expenses	Net Revenue	MMBF /1 Harvest
Angeles	10	190	-180	0.1
Cleveland	7	48	-41	0.2
Eldorado	99	1,204	-1,105	4.8
Inyo	27	122	-95	1.6
Klamath	31	556	-525	3.1
Lassen	97	410	-313	6.5
Los Padres	6	96	-90	0.2
Mendocino	24	983	-959	1.0
Modoc	15	85	-70	1.0
Six Rivers	30	335	-305	1.6
Plumas	112	519	-407	6.1
San Bernardino	70	213	-143	1.4
Sequoia	67	578	-511	3.2
Shasta-Trinity	99	631	-532	4.8
Sierra	55	777	-722	5.3
Stanislaus	63	818	-755	7.2
Tahoe	50	165	-115	1.5
Lake Tahoe Basin	16	24	-8	.4
Regional Office	0	893	-893	0.0
Regional Total	878	8,647	-7,769	50.0

/1 MMBF = Millions of Board Feet